

Input paper – Good practices on youth outmigration

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ABSTRACT

This document provides a scientific background on the topic of youth outmigration from industrial towns and regions. The empirical work encompassed a systematic review of 20 peer-reviewed articles dealing with youth challenges in industrial urban and regional settings. The focus was on eight thematic priorities, identified on the basis of international youth and industrial strategies. These are identity & values, education, training & skills, power hierarchies & social inclusion, built environment & infrastructure, demography & spatial mobility, employment, creativity & innovation, and participation & governance. The results of the systematic literature review are supplemented with illustrative examples of good practices of setting up a prosperous scene for young people in industrial settings.

SUMMARY (ENG)

The aim of this input paper is to provide a scientific background on the topic of youth outmigration from industrial towns and regions. We build our rationale for a research on the neglected need to systematically search for intersections between two strands of academic literature in urban and regional studies—youth challenges and industrial development. There is little knowledge about the population dynamics of different subgroups in industrial areas and driving forces behind them. Young people represent one of the most significant demographic groups, whose population dynamics, contemporary lifestyles and everyday complex needs is a challenge for urban and regional planners. Migration and mobility is especially prevalent among youth, potentially leading to negative consequences for the regional development, indicating that this demographic group deserves particular attention. Addressing youth challenges in industrial areas properly can be key in influencing their decision to stay, go, or return.

The empirical work encompassed a systematic review of 20 peer-reviewed articles dealing with youth challenges in industrial urban and regional settings. We focused on eight thematic priorities, identified on the basis of international youth and industrial strategies. These are identity & values, education, training & skills, power hierarchies & social inclusion, built environment & infrastructure, demography & spatial mobility, employment, creativity & innovation, and participation & governance.

The results revealed that youth challenges are quite under researched in a context of industrial towns and regions and most of the selected case studies are strongly concentrated in the Anglosphere, with some exceptions from Nordic context and post-socialist Eastern Europe. Majority of the cases also exhibit a rather negative demographic and economic trends in a predominantly post-industrial context, where industry as an economic base has already left while industrial culture is still present. Severe deindustrialization put many industrial towns and regions in a disadvantaged position. Not only have they lost the economic base and social security, but they also struggle for the lost pride and lower self-esteem. Youth in such places experience difficult times to thrive. The biggest obstacle seems to be the maladaptation of economic and social systems for young people's needs and capabilities. Education, governance, employment, etc. often instil programmes that are not fit for the context of industrial towns and regions. Too many times they ignore place-specific industrial culture — grounded in the specific institutionalised routines of industrial structures, their incorporated conventions, beliefs, and production patterns, as well as the interlinked social factors beyond the factory itself.

SUMMARY (GER)

Das Ziel dieses Input-Papiers ist es, einen wissenschaftlichen Hintergrund zum Thema Jugendabwanderung aus Industriestädten und -regionen zu liefern. Hier besteht die Notwendigkeit, systematisch nach Schnittmengen zwischen zwei unterschiedlichen Strängen der akademischen Stadt- und Regionalforschung zu suchen - den generellen Herausforderungen an Jugendliche und regionaler, industrieller Entwicklung. Insgesamt gibt es verhältnismäßig wenig Wissen über die Bevölkerungsdynamik verschiedener Untergruppen in Industrieregionen und den treibenden Kräften dahinter. Dabei stellen insbesondere junge Menschen eine der bedeutendsten demografischen Gruppen dar, deren Bevölkerungsdynamik, Lebensstile und komplexen Alltagsbedürfnisse, eine Herausforderung für die Stadt- und Regionalplanung darstellen. Migration und Mobilität sind unter Jugendlichen besonders weit verbreitet und können zu negativen Folgen für die regionale Entwicklung führen, was darauf hindeutet, dass diese demografische Gruppe besondere Aufmerksamkeit verdient. Der richtige planerische Umgang mit Jugendlichen in Industrieregionen kann ein Schlüssel dazu sein, um ihre Entscheidung zu bleiben, zu gehen oder zurückzukehren, zu beeinflussen.

Der empirische dieser Arbeit umfasst eine systematische Durchsicht von 20 begutachteten Artikeln, die sich mit Jugendlichen und ihren spezifischen Herausforderungen in Industrieräumen befassen. Wir konzentrierten uns auf acht thematische Prioritäten, die auf der Grundlage von internationalen Jugend- und Industrie-Strategien identifiziert wurden. Diese sind Identität & Werte, Schulbildung, Berufsbildung, Machthierarchien & soziale Inklusion, gebaute Umwelt & Infrastruktur, Demografie & räumliche Mobilität, Beschäftigung, Kreativität & Innovation sowie Partizipation & Governance.

Die Ergebnisse zeigen, dass die Herausforderungen für Jugendliche im Kontext von Industriestädten und -regionen recht wenig erforscht sind und die meisten der ausgewählten Fallstudien stark auf den englischsprachigen Raum konzentriert sind - mit einigen Ausnahmen aus dem nordischen Kontext und dem postsozialistischen Osteuropa. Die Mehrheit der Fälle diskutiert dabei eher negative demografische und wirtschaftliche Entwicklung in einem überwiegend postindustriell-geprägten Kontext, in dem die Industrie als wirtschaftliche Basis bereits verschwunden ist, während die industrielle Kultur noch vorhanden ist. Es wird verdeutlicht, dass die starke Deindustrialisierung viele Industriestädte und -regionen in einer benachteiligten Position bringen. Sie haben nicht nur die wirtschaftliche Basis und die soziale Sicherheit verloren, sondern kämpfen auch mit dem verlorenen Stolz und einem geringeren Selbstwertgefühl. Die Jugend in solchen Orten hat es schwer, sich zu entfalten. Das größte Hindernis scheint die Fehlanpassung der wirtschaftlichen und sozialen Systeme an die Bedürfnisse und Fähigkeiten der Jugendlichen zu sein. In den Bereichen Bildung, Verwaltung, Beschäftigung usw. werden oft Programme und Ansätze genutzt, die nicht für den Kontext von Industriestädten und -regionen geeignet sind. Zu oft ignorieren solche Konzepte die ortsspezifische, (industrielle) Kultur, welche in den spezifischen institutionalisierten Routinen der Industrie, den darin verankerten Konventionen, Überzeugungen und Produktionsmustern sowie den vernetzten sozialen Faktoren jenseits der Fabrik selbst, begründet liegt.

SUMMARY (SI)

Namen tega dokumenta je podati znanstveno podlago tematiki izseljevanja mladih iz industrijskih mest in regij. Ozadje raziskave temelji na doslej zapostavljenem presečišču dveh vej v znanstveni literaturi urbanih in regionalnih študij — izzivov mladih in industrijskega razvoja. Malo je znanega o tem, kakšna je prebivalstvena dinamika različnih družbenih skupin v industrijskih območjih in katere so gonilne sile v ozadju. Mladi so ena od najbolj posebnih družbenih skupin, katerih prebivalstvena dinamika, sodobni življenjski stili in kompleksne vsakodnevne potrebe predstavljajo izziv za mestne in regionalne načrtovalce. Mladi so prostorsko zelo mobilni, kar potencialno vodi v negativne posledice za regionalni razvoj, zaradi česar moramo tej družbeni skupini posvetiti posebno pozornost. Pravilno naslavljanje izzivov mladih na industrijskih območjih lahko ključno vpliva na njihovo odločitev o tem, ali bodo na tovrstnih območjih ostali, se izselili ali se vrnili.

Empirično delo je obsegalo sistematični pregled dvajsetih znanstvenih člankov, ki obravnavajo izzive mladih v industrijskih mestih in regijah. Osredinili smo se na osem tematskih prioritet, ki smo jih identificirali na podlagi mednarodnih mladinskih in industrijskih strategij. Te so identiteta in vrednote, izobraževanje, usposabljanje in veščine, hierarhije moči in socialna vključenost, grajeno okolje in infrastruktura, demografija in prostorska mobilnost, zaposlovanje, ustvarjalnost in inovacije ter participacija in upravljanje.

Rezultati so razkrili, da so izzivi mladih v kontekstu industrijskih mest in regij razmeroma slabo preučeni, pri čemer je večina izbranih študij primera močno osredinjena na angleško govoreče države z le nekaj izjemami iz nordijskih držav in post-socialistične Vzhodne Evrope. Večina primerov izkazuje negativne demografske in ekonomske trende v postindustrijskem kontekstu brez delujoče industrije, ampak še vedno prisotno industrijsko kulturo. Izrazita deindustrializacija je mnoga industrijska mesta in regije močno prizadela. Izgubila niso le ekonomske baze in socialno varnost, temveč tudi ponos, njihova samopodoba pa je okrnjena. Mladi na teh območjih imajo zelo slabe razmere za uspeh. Najbolj jih ovira to, da gospodarski in družbeni sistemi niso prilagojeni njihovim potrebam in zmogljivostim. Področja, kot so izobraževanje, upravljanje, zaposlovanje in podobno, pogosto vsebujejo programe, ki ne ustrezajo kontekstu industrijskih mest in regij. V številnih primerih ne upoštevajo krajevno značilne industrijske kulture, ki je ukoreninjena v vsakdanje rutine industrijskih struktur in inštitucij, vanje vključenih dogovorov, prepričan in produkcijskih vzorcev kot tudi medsebojno povezanih družbenih dejavnikov.

1 INTRODUCTION

This input paper takes a closer look at the intersection of youth in industrial areas as a specific socio-spatial nexus. Industrial cities may seem an obsolete urban structure that has vanished from the political and economic agenda of the Global North and has been moved to countries of the Global South over the last few decades (Pipan 2018). However, some studies in Europe suggest that while deindustrialisation was particularly noticed in larger metropolitan areas, smaller towns and regions still retain a significant share of the economic base in the industrial sector (Koceva et al. 2016; Servillo et al. 2017). While there have been numerous studies about the negative impacts of deindustrialization in old industrial regions (Müller et al. 2005; Fol and Cunningham-Sabot 2010; Agueda 2014; Vaishar et al. 2016; Wolff and Wiechmann 2018; Jaroszevska 2019; Hoekstra et al. 2020; Albrecht and Kortelainen 2021), we saw only rare examples about the positive externalities of industrialism on contemporary urban development (Plöger and Kohlhaas-Weber 2014; Meili and Mayer 2017; Bole et al. 2020). Nevertheless, most of the research in one way or another pinpoints to the shrinkage of industrial towns and regions in demographic, economic, social aspects as well as spatial terms (Jaroszevska 2019), while population loss presents its main indicator (Großmann et al. 2013).

When it comes to population decline, studies usually stay at the aggregate level and do not distinguish between different demographic groups. There is little knowledge about the population dynamics of different subgroups and driving forces behind them. Here we come to young people as one of the most significant demographic groups, whose population dynamics, contemporary lifestyles and everyday complex needs is a challenge for urban and regional planners (Robertson et al. 2018). Migration and mobility is especially prevalent among younger people, potentially leading to negative consequences for the regional development (Gruber and Schorn 2019), indicating that this demographic group deserves particular attention.

The aim of this input paper is to provide a scientific background on the topic of youth outmigration from industrial towns and regions. We build our rationale for a research on the neglected need to systematically search for intersections between two strands of literature in urban and regional studies—youth challenges and industrial development. As identified by Haase et al. (2021), the research on shrinking cities has been strongly case-study based, which calls for more extensive cross-national comparisons, in order to uncover underlying themes and dynamics and to foster cross-contextual learning (Großmann et al. 2013). We do that by performing a systematic literature review on the topic of youth challenges in industrial towns and regions, which no one has done before. This approach allows us to observe the state-of-the-art and, based on current knowledge gaps, develop a roadmap for further research.

The structure of the document is as follows. After the introductory chapter, we describe into detail the methodology encompassing data collection, extraction and analysis. The results of the review process present a central part of this input paper. They are gathered in a third chapter alongside eight categories of youth challenges in industrial towns and regions. The results of the systematic literature review are supplemented with illustrative examples of good practices of setting up a prosperous scene for young people in industrial settings. They provide contextual background,

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addressed problems and implemented solutions of a particular youth challenge. The good practices are selected from different parts of Europe such as Austria, Germany, Poland, Portugal, Serbia, Slovenia, Sweden, and the UK. The main findings of the systematic literature review process are gathered in conclusions.

By its character this input paper is closely interconnected to the first input paper on 'Regional policy analysis in Idrija and the Steirische Eisenstrasse' (D.T1.1.1), in which the academic partners provide a brief analysis on the topic of the project via a review of existing data, policies and projects for both industrial regions. Both input papers are in their structure and outset prepared as a joint collaboration by the University of Graz, Department of Geography and Regional Science (AUT, PP1) and the Research Centre of the Slovenian Academy of Sciences and Arts, Anton Melik Geographical Institute (SI, PP2). For this input paper the Research Centre of the Slovenian Academy of Sciences and Arts assumes overall responsibility.

2 DATA & METHODS

We used the PRISMA method (Liberati et al. 2009; Moher et al. 2009) to conduct a systematic review of the literature on youth challenges in industrial towns and regions of the Global North. The PRISMA method provides rigorous standards for performing and reporting systematic reviews, including a four-phase flow diagram (Figure 1) and a checklist of important items to include in papers describing such reviews (e.g. Washington 2017; Rigolon et al. 2018; Parker and de Baro 2019). Four steps in the selection of papers encompass: identification; screening, involving reading titles and abstracts; eligibility, involving reading the full-texts; and inclusion.

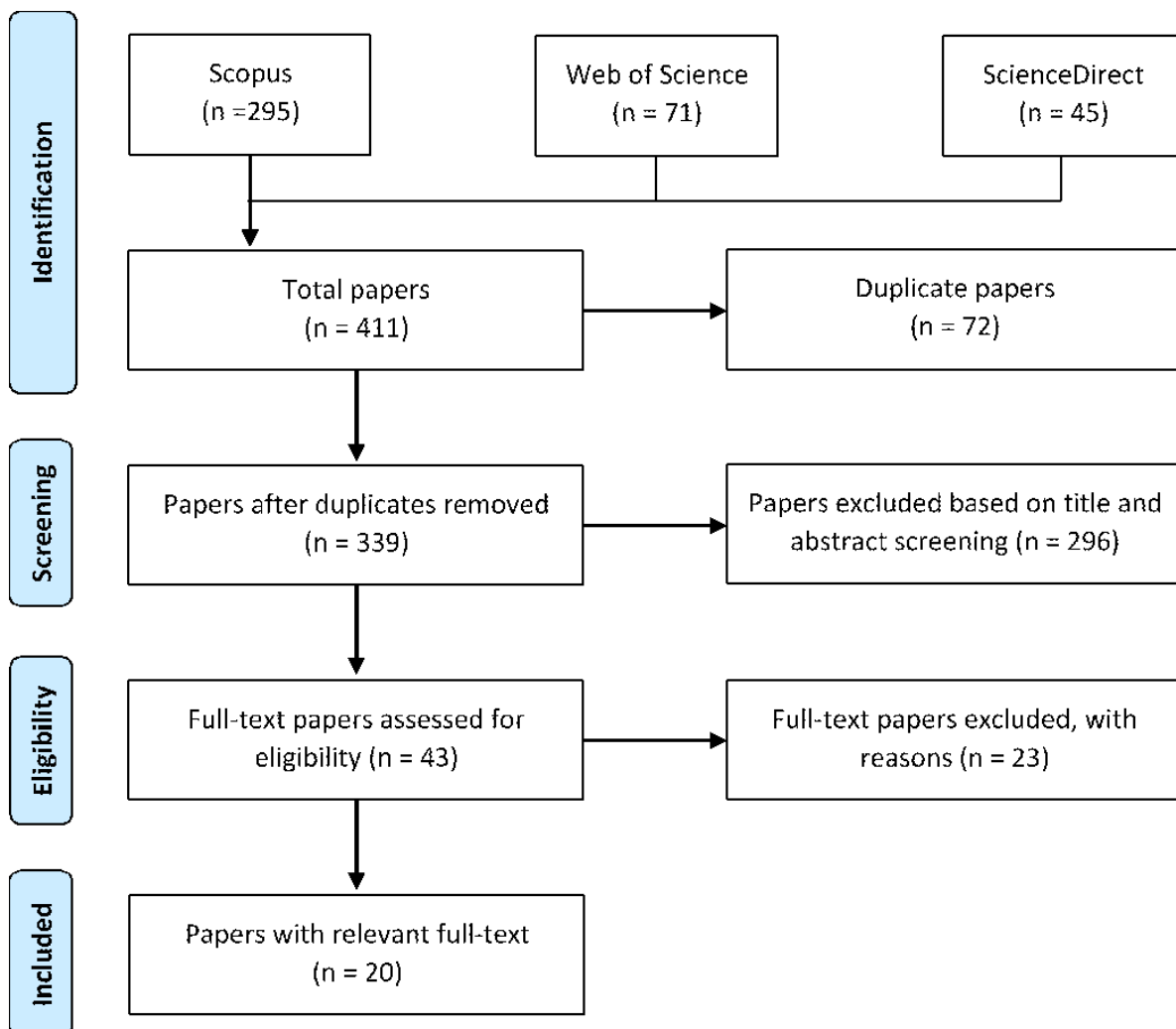


Figure 1: Literature search process based on the PRISMA flow diagram

2.1 SEARCH STRATEGIES & INCLUSION CRITERIA

The *identification phase* encompassed a literature search through three electronic databases of scholarly publications: Scopus, Web of Science and ScienceDirect. While we also considered other academic databases such as Springer Link and Emerald, we chose Scopus, Web of Science and ScienceDirect because they are the most widespread databases on different scientific fields which are frequently used for searching the literature (Chadegani et al. 2013; Zhu and Liu 2020; Gusenbauer and Haddaway 2020) and enable comparative advanced search of papers including querying and filtering of results. We chose to focus on peer-reviewed papers and book chapters in various scholarly disciplines under the umbrella of social sciences and humanities, and we limited our search to results written in English. We acknowledge that some relevant papers and book chapters may have been published in other languages spoken in countries of the Global North. However, accurate identification and evaluation of papers and book chapters in the multitude of languages spoken in Global North countries were not feasible. Therefore, we limited our search to results written in English, the language in which the most scientific documents are published (Gradim and Piñeiro-Naval 2019).

We restricted the publishing time of relevant papers since 1990 onwards, when deindustrialization with all of its accompanying socio-economic features has become marked by variegated national, urban and regional pathways (Pike 2020). Moreover, this is also the period when Eastern Europe as the last region of the Global North has entered the road of massive deindustrialization and reallocation of industrial production to the Global South. Although the Global South has recently also experienced some significant trends of deindustrialization (Schindler et al. 2020), there is still much evidence pinpointing to Global North-South divide in terms of economic development, income inequality, democracy, and political and economic freedom (Roy 2016; Rashied and Bhamjee 2020; Virani et al. 2020). For these reasons we focused our systematic review to the context of the Global North. However, lessons drawn from this research can also be applied to those areas of the Global South that have recently made important steps towards bridging the North-South divide.

After conducting a preliminary scan of the literature on youth challenges in industrial towns and regions in the Global North, we developed search expressions that included a combination of keywords describing the intersection of youth and industrial spatial structure (Annex 1; Annex 2). In all three databases, we searched for papers and book chapters that included “youth” (or synonym) and “industrial city” (or synonym) in their title, abstract, or keywords. We used several synonyms of youth and industrial spatial structure to capture the different terms that authors used to describe those constructs. After removing the duplicates from three databases, the search string identified 339 peer-reviewed papers and book chapters.

The objective of the *screening phase* was to select papers and book chapters with relevant titles and abstracts encompassing the intersection of youth and industrial spatial structure (city, town, region, etc.). Whereas the presence or absence of youth was not so difficult to determine, there was more ambiguity in detecting the industrial spatial structure. The main guideline was that the geographic or spatial perspective is clearly identifiable, significantly represented and does not serve only as a "backdrop" for the research. Additional criterion was that a particular paper or book chapter could

be meaningful for the field of urban and/or regional studies. We also accepted papers addressing post-industrial spatial structure, but only in cases when the abstract clearly demonstrates significant link with the industrial city as its predecessor. If the paper demonstrates no connection with the past or present industrial development and just talks about urban development in post-industrial settings, then it was excluded. In addition, we searched for documents addressing youth challenges after 1990 in the Global North. Studies examining previous periods or from the Global South were excluded. All five authors independently reviewed titles and abstracts and made decisions about which documents to include in the full-text screening. In the case of mixed opinion, we opened a brief discussion. If we were not able to reach a consensus, the majority prevailed. Based on given criteria, we selected 42 papers and one book chapter to be included in the eligibility phase. Selected documents were obtained digitally using team members' institutional subscriptions. We also contacted the authors of some papers by email or social media to request copies. However, one paper and the book chapter were still not available, which reduced the sample to 41 papers.

The *eligibility phase* encompassed a full-text screening. This process was meant to result in the final selection of papers to be included into the data extraction and analysis. During the process, we looked and flipped through the documents to identify the significant presence or absence of the given criteria. All five authors independently assessed the full-texts. Where opinions deviated, the discussion was reopened with a view to reaching a joint decision. At the end of the full-text screening, we included 20 papers that met all inclusion criteria (Annex 3).

Firstly, we can see that with an exception of two papers (Tyler 2004; Nayak 2006) most of them were published during the last decade, which emphasises a novel and growing need of investigating youth challenges in the context of industrial towns and regions. Secondly, selected papers were published in journals targeting myriad scientific disciplines in broader fields of social sciences and humanities, such as education studies, economics, spatial planning, urban studies, environmental studies, youth studies, psychology, community studies, etc. Both observations bring additional weight to the rationale of systematic review of academic works addressing the role of youth in industrial urban and regional development.

2.2 DATA EXTRACTION & ANALYSIS

We started the data extraction in a twofold manner. Firstly, we identified so-called contextual factors relevant for the interpretation of the results such as location, size, scale, socio-economic context (industrial vs post-industrial), demographic and economic trends, type of past and contemporary industrial activity and main youth characteristics (see Annex 4). All these factors are important to adequately understand the results and derive appropriate place-sensitive conclusions and policy implications. In addition, we analysed the methodological approaches in selected papers to understand how the results and conclusions were conducted. Secondly, we examined selected papers by applying the content analysis. This method is dependent on creating labels (codes) that can be applied to data in order to develop data into meaningful categories to be analysed and interpreted (Blair 2015). We decided to develop a coding list on a mixed deductive-inductive basis as it takes advantage of the strengths of both approaches (Gläser-Zikuda et al. 2020).

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In the first step, we developed deductive categories of eight youth challenges in industrial towns and regions based on identifying and comparing thematic priorities from strategic documents addressing 1) youth challenges and 2) industrial development at the international level (Figure 2). Youth priorities were identified in Youth2030: The United Nations Youth Strategy (UN 2018); EU Youth Strategy (EC 2018); Youth Wiki (EACEA 2020); Youth sector strategy 2030 (Council of Europe 2020); OECD work on youth (OECD 2020); and EU priorities according to young Europeans (Eurobarometer 2020). Industrial priorities (sector- and place-based) were identified in Regional strategies for industrial areas (European Parliament 2013); Regional Policy Intervention for Industrial Areas in Crisis (EoRPA 2017); Regions in Industrial Transition: Policies for People and Places (OECD 2019); and A New Industrial Strategy for Europe (EC 2020).

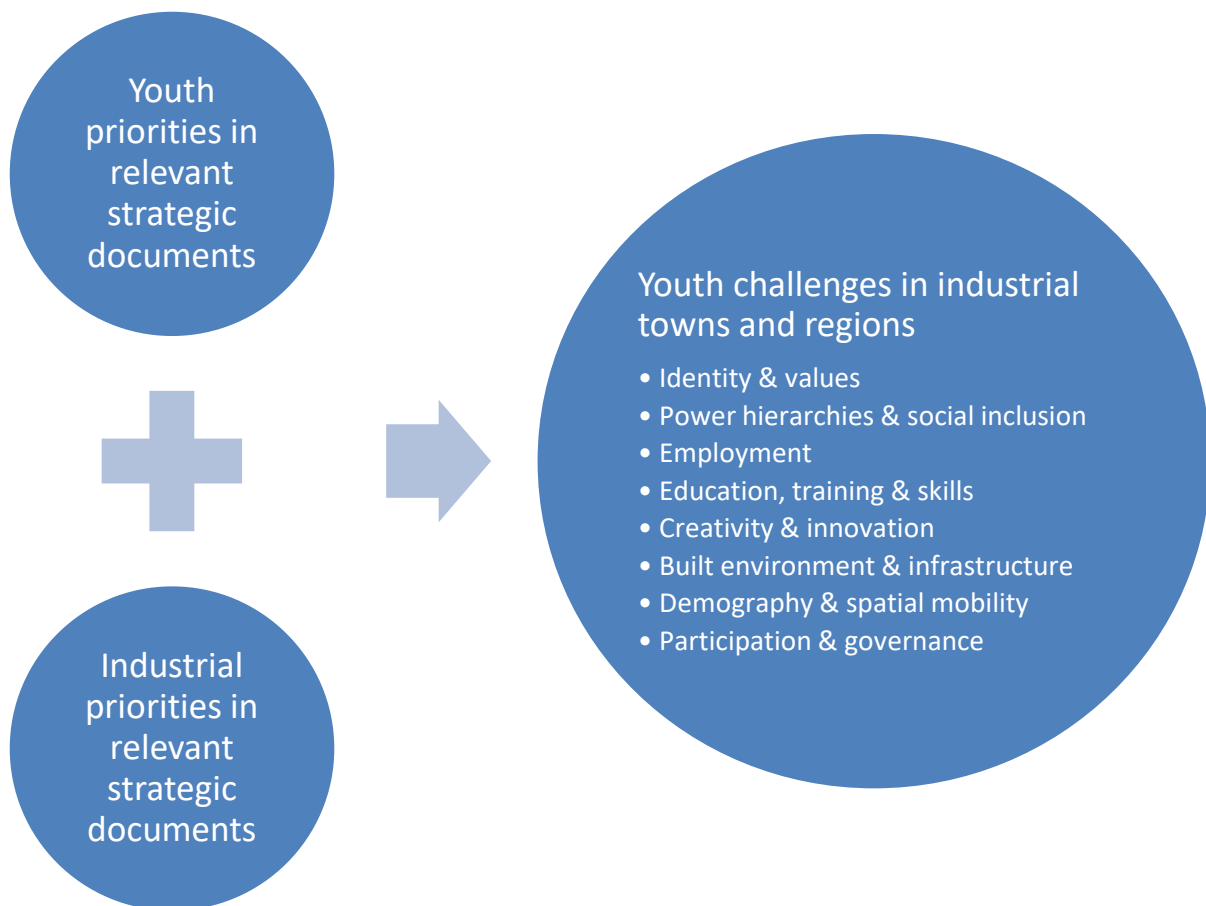


Figure 2: A process of developing deductive categories of youth challenges in industrial towns and regions of the Global North

In the second step, we designed several inductive categories within each deductive category for the analysis and interpretation of in-depth aspects of youth challenges in industrial towns and regions. Each author independently proposed a number of open codes when coding a common sample of five papers. After a thorough discussion, a consensus was reached on the number of codes and the rest of the papers were coded individually as well. We used ATLAS.ti to extract and analyse relevant citations.

3 YOUTH CHALLENGES IN INDUSTRIAL TOWNS & REGIONS

The analysis of contextual factors (see Annex 4) shows that most of selected studies were performed in the Anglosphere countries of UK, USA, Australia and Canada (80%) with the UK standing out of them. Other studies refer to Nordic context of Norway and Sweden and post-socialist context of Romania and Russia. This finding comes as no surprise since we decided to analyse only papers in English. However, such a result also implies a pressing need to bring more evidence from the non-Anglosphere territories to the international audience. It is difficult to imagine to overcome a highly criticised Anglosphere hegemony when it comes to the use of English, but this is possible by diversifying the research cases.

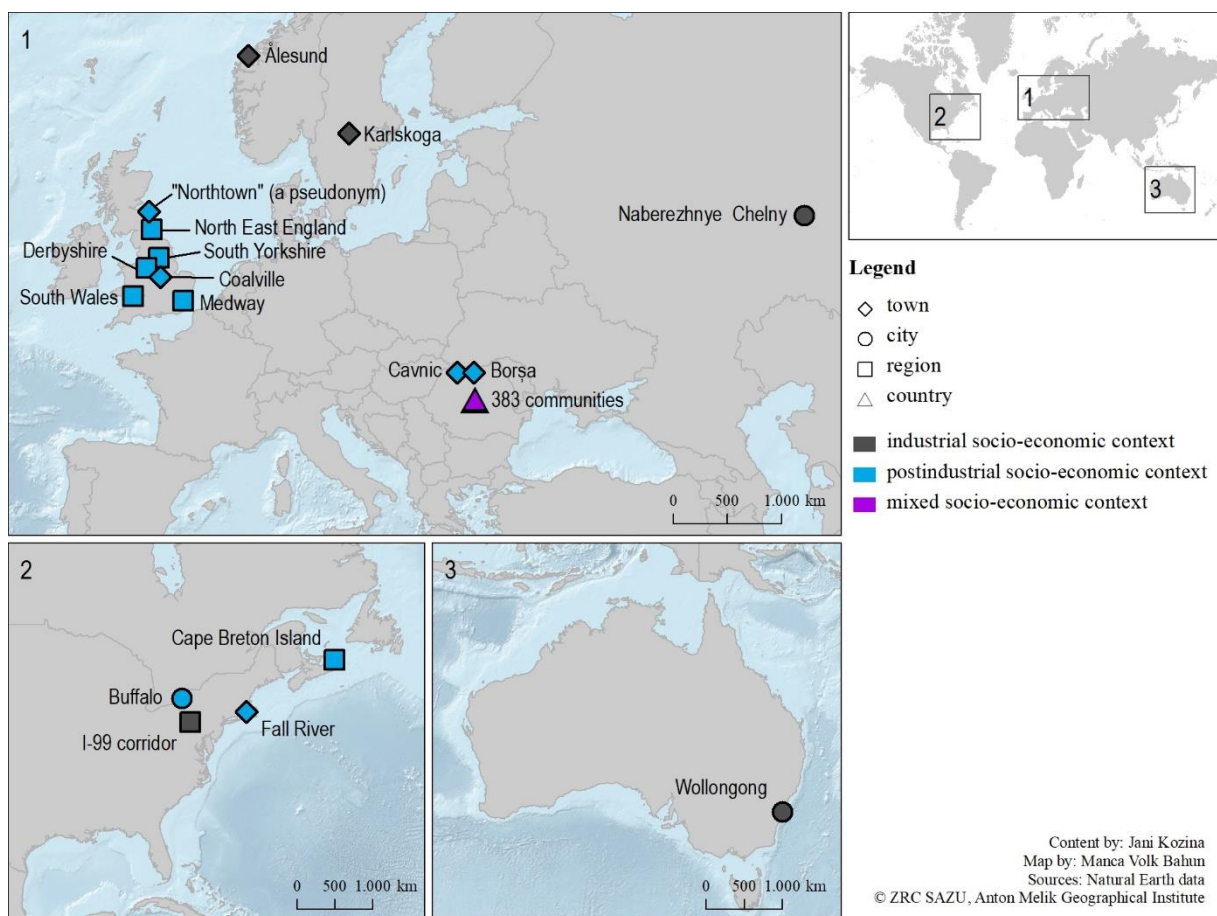


Figure 3: Distribution of selected (post)industrial towns and regions in the Global North

Most of the cases (85%) were analysed on the regional or town level which corresponds to the general overrepresentation of industrial economy in small and medium-sized towns (Servillo et al. 2017). However, most of the cases (75%) were analysed within post-industrial socio-economic context. Such towns and regions are characterized by the loss of the once predominant industrial employment but with still markedly present and distinctive industrial culture consisting of tangible and intangible elements originating from the sphere of industrial production in the past, present, and future (Harfst et al. 2018). The tangible dimension often focuses on built industrial heritage and its preservation or reutilisation, often as places for cultural events, education or other purposes

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(Rautenberg 2012), whereas the intangible dimension encompasses the comprehensive history of the industrial age with its typical forms of life and society, and the associated norms and values that made up the past and present industrial cultural landscapes (Pirke 2010).

Selected cases also predominantly exhibit negative demographic and economic trends, although some other literature also offers significant evidence about the favourable socio-economic performance of industrial towns (Plöger and Kohlhaas-Weber 2014; Meili and Mayer 2017; Ženka et al. 2019; Bole et al. 2020). This finding corresponds with the recent argument of Bole et al. (2020) that industrial towns and regions are rarely presented outside of the context of shrinkage marked by demographic and economic decline. Hence, the final sample of our papers with some exceptions (Tyler 2004; Warren and Gibson 2011; Helgesen et al. 2013; Kaiumov et al. 2014; Pleasant 2019) portrays a rather negative image of (post)industrial urban and regional development. On the contrary, this finding already suggests a need to unveil more evidence about successful addressing of youth challenges in more stable or rising industrial urban settings.

Majority of the authors focused on in-depth case studies by applying qualitative methods such as interviews, participant observations and focus groups. Quantitative approaches of analysing secondary data were rarely used; only one paper offers a comparative quantitative analysis of statistical data for 383 communities and a comparative qualitative analysis of two Romanian towns (Radu 2015). Such finding calls for comparative research between different spatial, cultural and political contexts.

According to the typology of Hamzah et al. (2007), analysed youngsters mostly belong to the early (15-20) and middle (21-24) youth groups and only rarely to late youth group (25-35). In most cases, they are students with a working-class background and relatively often characterized by deprived settings such as precariousness, unemployment and social exclusion. Only rarely, they represent a social group with a positive socio-economic image.

The literature also deals quite differently with youth challenges, identified on the basis of international youth and industrial strategies. Number of citations per youth challenge in selected papers (see Annex 5) designates the biggest representation of 1) identity & values, 2) education, training & skills, and 3) power hierarchies & social inclusion (more than 10 citations per paper), medium representation of 4) built environment & infrastructure, 5) demography & spatial mobility, and 6) employment (between 5 and 10 citations per paper), and the lowest representation of 7) creativity & innovation and 8) participation & governance (less than 5 citations per paper). This query does not necessarily define the importance of each prescribed youth challenge, but rather indicates their popularity in scholarly literature. So we should take the following results with a bit of a caution as some sections offer more flesh and findings can be more easily generalizable, while the others build on a more limited set of data and information. However, different representations of identified youth challenges provide an overview on neglected fields of research where scientists should do more to better understand the nexus between young people and urban development in industrial settings.

3.1 IDENTITY & VALUES

Main highlights:

- Sense of belonging: Family plays a very important role in industrial context, where industry equals community and community equals family, as cultural capital is passed on to the young generation, family's status and close connection is lived on.
- Codification of values: Industrial identity with its codes and values seems to be “obsolete” and not working for facing today's challenges, structural shift made apprenticeships less popular, an essential part of inheriting culture through work and dirt got lost.
- School as a battleground of values: Failures and lack of aspirations in school are evident if security and support is missing (by family and originally provided by the company). Therefore, it negatively affects the youth and they fail achieving social and cultural capital, which is necessary for their future.
- Masculinity in crisis: Due to loss of physical work, new ways of maintaining and reproducing cultural identities emerge such as leisure activities. Literature addresses male adolescents rather than female, who are seen to be more striving.

Commentary:

Due to the industrial region's unique culture with its customs and traditions, place-based identity constitutes an important issue. In the papers, this is displayed by talking about special mentalities or a certain industry logic. This and the spirit of community is passed on by the youth, even though they have no first-hand working experience in the industry, which to directly relate to. On the one hand, these attributes are portrayed in a negative, backwards way. On the other hand, the industry is seen as a provider of security and community (Areschoug 2019). The sense of belonging also reveals itself in place attachment and rootedness. As family plays an essential role, it also contributes to prevent emigration. As some leave for jobs or studies at one point or another, being close to their “community” and/or family is a crucial factor for returning youth (see Klimt 2014). Yet, it seems that one who inherits a different value system and does not “fit” in the community, is more likely to emigrate and not return (Klimt 2014).

Furthermore, it is stated clearly that deindustrialisation and economic downturns affect youth development trajectories in a negative way, as the whole basis of their industrial identity with its codes and values seems now to be “obsolete” and not working anymore to face today's challenges accordingly. Not being offered security and a stable environment by their families can thereby be a crucial factor for youth's trajectories. Furthermore, some experience a “lock-in effect”, as families can become an obstacle. Especially lacking financial and mental support from those who fail to adapt in economic downturns themselves (gambling, alcohol, debt, etc.) has massive consequences on youth's social behaviour, success at school and attitudes, as they fail to achieve social and cultural capital, which is necessary for their future trajectories (see Brann-Barrett 2011). The school thereby represents an extreme point where different value systems clash. The youth's school attendance often comes with troubled behaviour like resistance and a failure of aspiration, especially boys are

often portrayed as failing and problematic, whereas girls are shown as more striving (see Areschoug 2019).

GOOD PRACTICE: Echoes of the Past – Heritage Futures

The project Echoes of the Past – Heritage Futures highlights the need of high-quality vocational training in (post)industrial areas which face unemployment and social problems. Overall, 6 project partners from 4 different European countries (Portugal, Sweden, Austria and the UK) were participating. It was co-funded by Erasmus+, starting in 2015, ending in 2017, total costs: 37.630,00€.

It aimed at new chances and ideas for finding employment and on-the-job training. Therefore, it firstly provided training material and courses for training professionals, the VET providers, working within this setting, with a connection to culture and heritage. Secondly, online training materials were accessed by employees, VET providers and vocational education to get VET material for the target group. Potential target groups: young adults, unemployed people, ex-workers, teachers and trainers lacking heritage education skills as well as professionals of institutions working with post-industrial heritage and landscapes. Next to a methodology handbook, the e-learning tool “echo quest”, was established.

Furthermore, the heritage education, by content/modules and online platforms aimed to make industrial heritage and landscapes more accessible. The provided VET methodologies were used by the professionals of cultural institutions, VET providers, school teachers, trainers and professionals working with people with special needs. Thereby the partnership desired to contribute to a gradual, efficient implementation of a work-based learning programmes, including apprenticeships, benefitting from the unique character of the industrial heritage.



The program logo and a class during Echoes Quest

Source: <http://echoes-vet.eu/>

Further information: <http://echoes-vet.eu/>

Another challenge constitutes the dealing with the past, as it was in selected cases associated with trauma and loss for those dealing with deindustrialisation (see Bright 2012; Bowen 2017). The industry’s leftovers therefore evoke negative associations and often represent the past’s

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suppression. Especially in the phase of adulthood transition, the environment is a determining factor. Youth in industrial regions must face up to this challenge more intensively, especially the passage from school to the labour market, which bears a certain insecurity.

When it comes to gender specifics, the dominant discourse addresses young men rather than young women. In particular, the “white working-class masculinity” is discussed in terms of rural industrial spaces and its change of meaning and endangerment due to deindustrialization. As it is closely tied to hard working underground, dirt, specific habitus and language (see Ward 2017; Pleasant 2019). This need of imposing standards of behaviour (Pleasant 2019) proves a codification of values. Furthermore, due to changes in economics and women’s social positions, masculinity is described as “in crisis” (see McDowell, 2003). Therefore, new ways of maintaining and reproducing cultural identities are applied, which reveal themselves in leisure activities, group affiliation and a certain behaviour.

3.2 EDUCATION, TRAINING & SKILLS

Main highlights:

- Low quality of education is often stereotypical and intermeshed with notions of industrial decay and being "anti-intellectual".
- The young suffer from low self-esteem and consequently low educational aspirations—"defeatism"—and resist conventional schooling due to the tradition of "fighting-back".
- Gender issues are important, as there is a culture of traditional industrial masculinity in education and apprenticeships: better—non-industrial—education is perceived as "upper-class" or "feminine".
- Local industrial knowledge is being transmitted—skills and values—to newer generations, but is often unrecognised by official schools or education systems.
- Curriculum needs to be adapted to the needs of students and the industry; there should be frequent communication between the two; the public sector should make the town/region culturally and socially more attractive for students.

Commentary:

There is a general impression that themes explaining negative experiences of youth education in industrial places prevail. Only a few papers highlight positive experiences of education in industrial places. Most of the papers acknowledge that the low quality of education is not grounded in reality but rather a reflection of difficult socio-economic conditions. This perceived low quality of education is often intermeshed with stereotypical notions of decaying, unsafe or economically disadvantaged industrial places. Areschoug (2019) gives an interesting narrative on how education is tied-up with local structural patterns such as deindustrialisation and how these are reinforced through dominant media. Furthermore, schools in industrial areas are the arena where clashes between the more neoliberal educational agenda connected to individualism clashes with the older (post)industrial traditions connected to solidarity (Ivinson 2014). Perhaps the mentioned stereotypical notions of low

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quality education in industrial places are transmitted to future students, since several authors notice modest and often very practical ambitions for schooling (Ward 2017; Bright 2011).

GOOD PRACTICE: From Education to Employment (E2E), Serbia

E2E is an ongoing project in Serbia with a focus on industrial towns (Kragujevac, Novi Pazar, Pirot, etc.) and funded by the Swiss Agency for Development and Cooperation. The vision of the E2E programme is to provide decent job prospects for all young women and men regardless of their social status. The focus is on young, unemployed persons, particularly those that belong to the NEET group, who are in school to work transition, and belong to the 15-30 age group. Career guidance services are open to all young women and men, however, certain groups of young people face particular disadvantages on the labour market, which makes them hard to place and are thus in need of additional support measures: young offenders in reform schools, young people without parental care, soft skills training and guidance for Roma and mobile career teams for rural youth.

This vision is achieved through the promotion of the modern active labour market and skills development measures based on the Swiss model and adjusted to local needs. In order to help the youth efficiently prepare for jobs that meet private sector needs, the E2E created a network of five local partners. These so-called “brokers” act as mediators and bridge-builders between training providers, companies and youth – setting up a system that will serve the community long after the project comes to a close. Local partners offer services such as provision of labour market information, training programs, practical guidance and vocational counselling in school-to-work transition and mediation of work-based learning (WBL) opportunities such as internships for youth.

“As a hobby, I practiced electric hand welding at home. I fell in love with it and so there was no dilemma when I found out about E2E WBL training in Wacker. In this I saw an opportunity to mastering MIG / MAG welding which is in high demand in the industry. I believe I’m well on my way to succeeding in a job that provides security for me and my family. This is an imperative for me as a young man who wants to support his family.”
Andel Dordević, 29 years old, attended a training at “Wacker Neuson” company in Kragujevac

Young People and Social Environment

School, NES, Career Centre, Social Services, Other Support, Economy, BROKER

Pictures from the project’s flyer

Source: <https://znanjemdoposla.rs/en/>

There are numerous tools developed in the project to help youngsters develop skills needed by their future employers: a) a basic ability check that helps young people in career planning (online tool); b) career Interest Quiz – WayFi is a short quiz/test aimed at young people who have not yet clearly defined their interest and abilities and want to check their interests and professional choices; c) career counselling where young men and women are given information about their skills, career planning and link them with appropriate schools, teachers or providers of trainings or apprenticeships.

The project is ongoing but is very successful: so far 350 marginalised youth received training and 60% of participants in work-based learning programmes found regular employment.

Further information: <https://znanjemdoposla.rs/en/>

The clash between older and newer educational tradition further lowers the quality of education and produces resistance towards education in (post)industrial communities. Pleasant (2019) studied engineering apprentices and found that moral codes in the apprenticeship programme are not aligned with older moral codes from the industrial era. Modern curriculum offers standardised education detached from industrial traditions, while apprentices also need to develop moral codes such as solidarity and commonalities with older generations peers (Pleasant 2019). Ivinson (2014: 253) gives a sombre testimony of a boy whose intricate knowledge of industrial past is recognised as an oddity in the school and written off in terms of academic achievement since the boy “*has a different code to the school code...*”. Resistance to education and low self-esteem of youngsters are reinforced by dominant narratives that low aspirations are reproduced in “*pathologically 'workless' communities*” (Bright 2012a: 315), making the disadvantaged youth responsible for their predicaments.

Another prominent theme is acquiring practical skills, especially those informal practices that help the young navigate life and school. Ivinson (2014) explains how practical skill-learning in industrial communities is passed from one generation to another and constitutes additional cultural capital. This “*inherited*” capital—skills, attitudes—can help students navigate the formal public school system and attain better success (Brann-Barrett 2011; Ward 2018), although it is sometimes perceived as not being school-appropriate knowledge. Breaking down the barrier between academic and practical knowledge is something schools in industrial places are achieving by introducing a more vocational orientated curriculum (Ivinson 2014). One solution is to connect education in the town/region with existing industries (Helgesen et al. 2013), especially through applied sciences where local companies and students can mutually benefit (Trauth et al. 2015).

Lastly, the gendered education of youth in industrial places is a prominent subject. Due to distinct values, boys are often expected to conform to certain educational programmes linked with masculinity. For instance, the education selection in a Russian functional industrial city is highly gendered—boys selecting engineering and blue-collar education and girls selecting healthcare, education and culture (Kaiumov et al. 2014). This is true even for the British post-industrial communities, where gender stereotypical courses are still relevant. Ward (2018) describes how some educational preferences are perceived as “*feminine*” and how students have to adopt strategies to deal with this de-masculinisation, which implies that lecturers in (post)industrial settings should recognise and contest orthodox gender attitudes in teaching practices.

3.3 POWER HIERARCHIES & SOCIAL INCLUSION

Main highlights:

- In the class-ridden societies of the post-industrial settings, traditional class divisions resist and socio-economic inequalities are being reproduced, also combined with racialized discourses.
- Low aspirations, resistance, delinquency and social exclusion among youth seem to be deeply entangled with the specifics of local working-class culture and its traumatic history.
- Juvenile delinquency, gang involvement and “culture of the street” seem to be common in post-industrial settings facing economic decline or restructuring.
- Among the disadvantaged youth, social networks are important to cope with unfavourable socio-economic conditions, but a high sense of obligation towards their families can be self-detrimental.

Commentary:

A theme of power hierarchies and social inclusion is the most pronounced in places with a long history of capitalism and classed society. In a post-industrial reality, when local industry or mining is in decline or completely gone, power hierarchies proved to be very resilient; as a result of a long class domination, there persists a historical legacy of being the inferior “other” that resonates in the present (Reay 2009; cf. Bright 2011). How do young people cope with such power relations and how the present or past social position affect their cultural capital or life trajectories, is an intriguing research question. However, it only gained attention in economically and socially deprived post-industrial communities in the core Anglosphere countries, especially in the UK. Despite the changes in the social landscape, the UK is far from becoming a classless society and traditional class divisions are taking new forms.

Class-based distinctions are still rooted in society and structuring young lives. Such distinctions often turn to low aspirations, which seems to be deeply entangled with the specifics of local working class culture and (traumatic) history, such as severe deindustrialization. For example, Bright (2011) identifies a special form of struggle—resistance/resistant aspiration, which sets itself against the dominant discursive model of aspiration as individual economic advancement. The individual hopes of teenagers are framed in “*complex, classed forms of cultural transmission and by social memory*” (Bright 2011: 75). Especially young men remain creative actors transposing older working-class values upon new leisure routines, also reflecting their own social class pretensions and fears of slipping back (Nayak 2006). Classed experiences were evident also in the study of Wattis (2013), where women students interpreted the locale predominantly in terms of its “working-classness” and the social problems associated with deindustrialisation, also using underclass discourses. On the other hand, there is also a lack of acceptance of students by locals, also relating to anti-intellectualism, associated with working-class culture (Wattis 2013). Educational system also proved capable of reproducing socio-economic inequalities (Brann-Barrett 2011; Ivinson 2014).

When deindustrialization was followed by the economic decline, various forms of social deprivation and exclusion among youth took place and are well-documented, ranging from homelessness

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(Bowen et al. 2017), school drop-out due to disruptive family lives and psycho-emotional consequences (Brann-Barrett 2011; Bright 2016), above-average share of NEET (Bright 2012), anti-social behaviour (Bright 2011), and juvenile delinquency and vandalism (Nayak 2006; Brann-Barrett 2011; Wattis 2013; Bowen et al. 2017). Gang involvement and “culture of the street” are also reported as the reality of many youngsters (Nayak 2006; Bright 2012; Ivinson 2014), especially from deprived and marginalised former working-class families (Nayak 2006). Socio-economic transformations can also lead to racialized discourses (Tyler 2004; Nayak 2006; Warren and Gibson 2011). Such practices can be also understood as a means of recuperating the material and symbolic value of labour or to authenticate “roughness” or “hard” masculine status (Nayak 2006) or a reaction to boredom, related to little recreational infrastructure and activities (Brann-Barrett 2011). In general, delinquent actions can be ascribed to a wider socio-economic or historical background: local history, marked with traumatic events, such as strikes or pits closures, left deep scarves to the local communities, reflected in hostilities between individuals and groups, related to the complex and conflicted history (Bright 2012). All these examples indicate how detrimental can deindustrialization be for local communities, especially when no alternative is offered.

Class division, inequality and social deprivation among youth are tackled institutionally by social programmes or occasionally turn out to different forms of (social) activism. Kloep et al. (2010), for example, propose community-wide approaches to prevent risk factors in young people’s development, while Tyler (2004) emphasizes the importance of youth clubs as the ideal settings for spreading anti-racist views, especially in deprived settings, where youngsters are an easy target of emotive right-wing propaganda and xenophobia (Bright 2012). The same author showed how a local culture of “resistant aspiration” forms a site of activist possibility. He noted that such activism became “pragmatic”, not strategically pursuing a distinctive policy agenda. In his another study (Bright 2016), the author pointed out a “bridging capacity” of precariousness as it can bring together youngsters’ interests irrespective of their educational attainment.

To cope with unfavourable socio-economic conditions, social networks, also extending beyond the family, can be of a crucial importance to provide help beyond (insufficient) institutional structures and contribute to a sense of optimism, identity and achievement (Brann-Barrett 2011; Warren and Gibson 2011). On the other hand, many disadvantaged young people limit their own life chances to please their family members due to a high sense of obligation and reliance on family even when it is self-detrimental—an example of “lock-in effect” (Brann-Barrett 2011). However, for some youth unfavourable conditions can act as a “positive push factor”, while for others it can be a constraint in their future plans (Kloep et al. 2010).

GOOD PRACTICE: The youth volunteering group “MC Udarnik”, Velenje, Slovenia

“MC Udarnik”, a group of around 70 young volunteers, formally organised in 2015 within the Velenje Youth Centre in Slovenia, provide free help to vulnerable and marginalized people for any work at home and around the house (e.g. housework, food delivery, grass mowing, forest clearing, snow shovelling) and cooperate in social programmes, orientated to social inclusion of youth.

The industrial town of Velenje, Slovenia was largely built with the collective effort (also with numerous “shock work” actions especially in the 1950s) and has always been showing a high level of social sensitivity and solidarity, leaving no one behind. The number of socially deprived people somehow increased after the economic crisis in 2008, recent neoliberal delusions and ageing of the population. On the other hand, the town has a highly developed youth policy with numerous projects and programmes with aim to achieve active participation and empowerment of young individuals, offering them numerous options to spend quality time, contribute to well-being in the town and express their creativity. The foundation of the youth volunteering group in 2015 was therefore a logical step as the youth in the town have been highly engaged and numerous volunteering actions already happened before (such as renovation of the summer cinema in 2009).



*Renovation of the summer cinema in Velenje in 2009 with 75 volunteers and over 1,500 volunteer hours
Source: Velenje Youth Centre Archive*

The history of “MC Udarnik” includes hundreds of actions helping marginalized and vulnerable people in the municipality, solving their daily life problems and promoting solidarity and mutual help. Among work at home or around the house to physically impaired and elderly, their activities also include help for children and youth: for example, they give private lessons and organize artistic workshops, also for juvenile delinquents. They were highly engaged also during the covid-19 pandemics as they established a free phone line for seniors and held a concert in front of the local retirement home. For youth, participating in volunteering activities provides a valuable experience, skills and shapes their core values. The group is receiving financial aid from the municipality, while the volunteers are provided a meal and reimbursement of travel costs. Therefore, this highly engaged and well-organized group maintains the tradition of volunteer shock work and core socialist and industrial values (diligence, solidarity, mutual help, comradeship, collectivism), which help to retain the social capital and keep the social cohesion in the town.

The practice is especially applicable to towns with developed industrial culture as it helps to retain social capital, social cohesion and certain industrial values.

Further information:

- Udarniki MC Velenje. Internet: <http://www.mc-velenje.si/dejavnosti/udarnik> (Accessed 19 January 2021).
- Tiran, J. 2020: Družbene inovacije v mestu – rešitve za negotovo prihodnost? [Social innovations in the town – a way to deal with uncertain future?] Bole, D. (ed.): Velenje, industrijsko mesto v preobrazbi [Velenje, an industrial city in transformation]. CAPACities 4. Ljubljana, Založba ZRC.

3.4 BUILT ENVIRONMENT & INFRASTRUCTURE

Main highlights:

- Lack of basic infrastructure: recreation facilities, public transport, formal education and affordable housing.
- Recreational infrastructure, also accessibility, is an important factor of well-being. Absence often results in negative behaviour, abandoned sites even facilitate anger, feeling of abandonment. Yet improving social activity offerings, can result in student town loyalty.
- Youth facilities as important contact and contribution for well-being and psychological support.
- Educational facilities, a contribution to success and the youth's future, often become an obstacle. Education should consider the youth's needs and offer programs, which work in industrial environments.
- New mindset for a broader view for relationships between skills, place and community, away from working-class educational failure.

Commentary:

Industrial youth's challenges are manifold, ranging from lack of infrastructural environment, especially recreationally motivated, to care and support, often resulting in social problems, which hinder them from an adequate education and promising future. *"High drop-out rates, and a pervasive provincialism – meld into a widely-held stigmatized identity"* (Klimt 2014, p.35), which is associated with *"unmodern and backwards"*.

Abandoned industrial infrastructures are typically neglected in literature, yet if addressed, then only as a trigger of evoking negative associations and feelings, representatives of trauma and loss (see Bright 2012). On the other hand, the lack of general infrastructure was an often-mentioned issue, the following factors were thereby described as missing or expandable: recreation facilities, public transport, formal education and affordable housing. Especially still functioning recreational infrastructure determines an important factor for the youth's well-being and its absence or neglect often evokes feelings of anger. Furthermore, abandoned infrastructure is seen as an indication that their communities are forgotten (see Brann-Barrett 2011). Underlining its importance, Helgesen's (2013) research did name "social activity" as the most important driver for student town loyalty. Additionally, the importance of accessibility was stressed, which is crucial when outdoor and leisure activities are present but out of reach and therefore not in use (see Brann-Barrett 2011).

As the previous chapters have shown, schools are the places where industrial youth's background and their inherited values come to light, in this connection and in research often labelled as disadvantaged. Ivinson (2014, p.257) hereby strongly disagrees, suggesting *"the need to shift thinking away from working-class educational failure to encompass a broader view of relationships between skills, place and community"*. He addresses a point, which the literature also critically notes that the youth are observed out of spatial context. The youth's attached stigma thereby is gendered, as rural boys are portrayed as immobile and backward in connection with old industrial settings (see Areschoug 2019). Education, which should be a positive contribution to success and the youth's

future trajectories, therefore, ironically becomes an obstacle (see Brann-Barrett 2011). Furthermore, rather than “*reproducing socio-economic inequalities*” (see Brann-Barrett 2011) a proper education should consider the youth’s needs and offer programs, which especially work in industrial environments (see Ward 2017).

Research also highlights the importance of youth facilities and its programs as places where youth is supported to process the “[...] *unspeakable community histories, thus making them available for a re-envisioning of aspiration, resilience and wellbeing*” (Bright 2012).

GOOD PRACTICE: Kühlhaus Görlitz (Coldware House Görlitz), Germany

The aim of the project was to turn an old warehouse, which was abandoned and vandalized, as well as used for illegal parties, with the tool of creativity into a new use. It started with an initiative of young people in 2006. In 2008 it was supported by the owner and later registered as an association with the transformation still going on. The regional Association for Cultural and Creative Industries Saxony (Germany) functioned as a partner. It was privately financed by the owner and 0.6% by the public (City of Görlitz, etc.), plus personal contribution by the registered association of Kühlhaus e.V. Due to its manifold uses, the project addresses different target groups which can interact. It is divided into the following areas with different purposes:

1. Alternative tourism
2. Creative commercial spaces
3. Meeting hub for youth culture (concerts, BMX-hall, etc.)
4. Part in between = represents the transition: mixed area on which the different actors and users meet



The Garage Hostel, the exterior and interior view of the site

Source: <https://kuehlhaus-goerlitz.de>

The project addresses different target groups which can interact—the local creative community and youth, as well as tourists, artists and freelancers. It has been a venue for concerts, film screenings, workshops and seminars and also functions as a working space and garage hotel, as well as a community space. It is a good example of turning brownfields into valuable spaces and how to combine industrial culture & leisure activities with alternative tourism and accommodation. Especially creative tourism is fostered by using creativity enhancing formats (joint dinners, campfires with other artists). Taking some “time off” by renting their living and work spaces as long as they want, presenting a new concept of working environments.

Further information:

- <https://kuehlhaus-goerlitz.de>
- InduCCI Project Report; Mediating industrial transformation to the society through CCI Empowering industrial society through CCI 01 2020 Transnational compilation of existing good practices, Julia Pohn & Gisa Schosswohl

3.5 DEMOGRAPHY & SPATIAL MOBILITY

Main highlights:

- Youth mostly emigrate from industrial towns due to lack of (job) opportunities.
- Youth stay connected to their industrial hometown, even in the case of emigration.
- Youth aspirations and decisions where to live are diverse, complex and not always rational.
- To attract and retain young people, collaboration between authorities, universities and firms is needed.
- To prevent brain drain, more attention should be paid to offering social infrastructure and cultural activities for youth.

Commentary:

This topic cannot be found as a distinct thematic priority or policy field neither in the area of youth nor of industry. Nevertheless, understanding “push” and “pull” factors related to spatial mobility and demographic trends is important as migration, for example, can have long-term socio-economic effects on both origin and destination areas. Our review showed that only a few papers addressed demographics or spatial mobility of youth in the industrial towns and regions more thoroughly but from very different angles and approaches.

Despite that the share of young people in total population is important for population change (Radu 2016), little is known about what pushes young people off the industrial towns. A scarce evidence suggests that youth leave industrial areas due to lack of opportunities, mainly jobs (Klimt 2014; Radu 2016). Some young people also think about leaving due to lack of voice and trust to decision-makers (Brann-Barrett 2011). On the other hand, emigrants from industrial towns remain attached to their community of origin (Klimt 2014) or bring a significant contribution by sending money back home to their families, keeping the local economy functioning (Radu 2016).

A little more is known about youth’s living preferences and aspirations in industrial regions; however, only one paper dealt with this issue, based on the interviews with young college-educated adults who were still living or returned to the wider geographic region of Fall River, Canada (Klimt 2014). The author found out that youth are navigating between expectations of individualistic trajectories of social mobility, self-realization, and geographic mobility on the one hand and commitment to family, cultural and social continuity, and geographic rootedness on the other. However, the latter group of factors somehow prevails as interviewees does not seem to make their decisions where to live explicitly in an economically rational way: only few interviewees moved permanently or rejected any sustained associations with the city of their youth, while other stayed or show a high level of place attachment and belonging, despite their good education profile, negative image and limited economic opportunities in the town.

As already noted, most analysed industrial towns and regions are facing demographic decline, what should also include outmigration of highly-educated youth, although the evidence about it is relatively scarce, noticed only in studies of Helgesen et al. (2013) and Trauth et al. (2015). As some regions have been going through transition from resource-based to knowledge-based industry, this

affects the labour market and creates demand for highly educated specialists, causing “brain drain” and “brain gain” at the same time (Helgesen et al. 2013). An important lesson for youth policies from the spatial mobility perspective is that a strong university-industry partnership can help ensure high school graduates to attain profiles, which match the needs of the regional economy, thus providing a renewable pool of talent for regional industry. Such approach can help regions to embrace greater demographic diversity and attract and retain the human capital (Trauth et al. 2015).

GOOD PRACTICE: Apartments for graduates—An affordable housing project aimed at university graduates, Poznań, Poland

In 2012/2013 the City of Poznań, Poland and its company Poznań Social Housing Association decided to create an affordable housing programme, “Apartments for Graduates”, to meet the needs of university graduates, retain young talent in the city and to boost its economic and social development by providing new employees and creating a lively neighbourhood. The combination of affordable pricing and good housing conditions resulted in a very high – and continuing – demand for flats in the programme. Tenants are chosen on the basis of several criteria.

The post-industrial city of Poznań has been facing the negative migration trend and housing shortage especially among youth, which made it difficult to start their career and set up a family.

The programme functions on the basis of a rental housing model. It was based on the research of current local housing needs with focus on young people and their housing preferences. The lease period of 10 years helps young people to become financially independent because they get help at the beginning of their careers. This stability is helpful in setting up a family.

The residential estate includes 4 residential buildings with a very good residential quality (green areas, sustainable transport options, social infrastructure, proximity to the city centre), 143 apartments (77 one-room and 66 two-room flats) and two underground parking garages. Criteria to choose tenants include education, age, income, flat ownership, living, working, and paying taxes in Poznan. Each person needs to cover certain costs (repayable participation in the apartment development costs, rent, reimbursable deposit equal to 6 monthly rental fees).



One of the residential buildings for university graduates in Poznań

Source: URBACT

The programme is potentially interesting for medium-sized cities which face the negative migration trend and can be applied and adapted to many different cities according to their size, number of students and financial situation. Many cities in Eastern and Western Europe have already shown interest in the programme.

Further information: <https://urbact.eu/apartments-graduates>

Brain gain can be also achieved by improving student town satisfaction. A study of Helgesen et al. (2013) revealed that, besides university reputation, student town satisfaction plays a key role in student town loyalty, mainly due to town-related offerings, especially social ones, such as cultural activities, leisure facilities and career service functions. In making such decisions, universities and local authorities should collaborate to attract and retain students, which can, through “word-of-mouth”, also influence other young people’s attitudes towards the region (Helgesen et al. 2013). Similarly, Brann-Barrett (2011) emphasizes the importance of accessing social, economic and educational infrastructure to secure the cultural capital of the young people.

3.6 EMPLOYMENT

Main highlights:

- The motivation for industry-connected jobs is low as prestige and values of the contemporary society changed in favour of service-sector jobs.
- The nature of employment has changed—from steady, life-time jobs to more creative but precarious employment possibilities with part-time contracts, flexible employment and low wages without stability.
- Youth unemployment is an important issue and is a direct consequence of difficult socioeconomic conditions (poverty, low education, crime, domestic issues, etc.).
- Job quality in industrial areas has declined despite the fact that there is less physically demanding work (lower wages, welfare benefits, etc.).

Commentary:

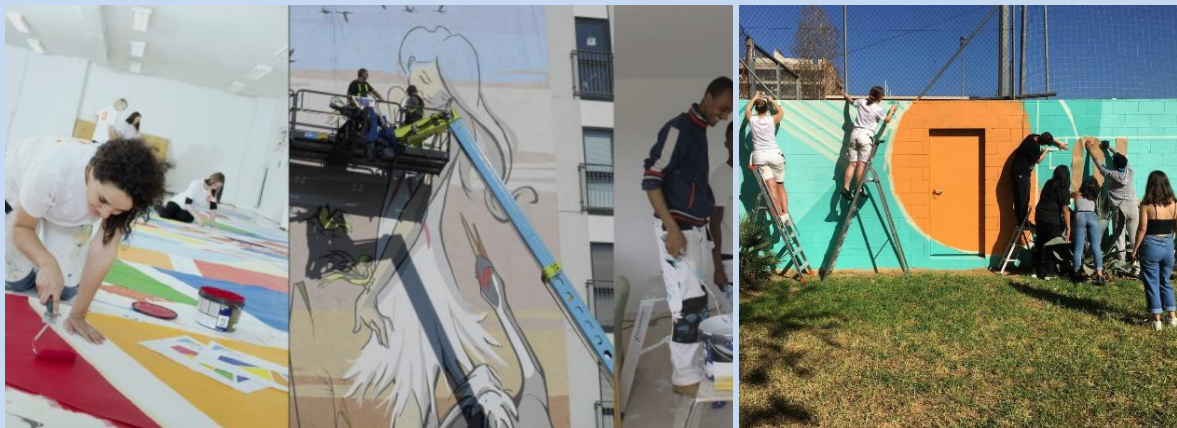
The topic of employment is surprisingly less popular in papers. Most discussed is the theme of values and attitudes towards employment whilst others deal with youth unemployment problems, precarious nature of work or poor job quality. There seems to be a divergence of papers based on the fact if the paper presents a functional industrial place or a post-industrial one. In functional industrial places, where industry still provides employment opportunities, the main issue is poor perception of industrial workplaces among youth. Kaiumov et al. (2014) explain that market reforms greatly impacted the perception and value of certain professions: the engineering professions are considered second-level, while the blue-collar occupations are considered lowest level. This leads to the so-called employment paradox, where there is a great demand for work in industrial professions, but the young are not attracted to them and are leaving industrial areas in pursuit for other employment possibilities. Industrial jobs are then taken by employees from abroad (Helgesen et al. 2013). The lack of motivation for local (industrial) jobs entails “[...] *importing men from other countries that actually have the motivation and ability*” (Areschoug 2019: 82) and outmigration of local youth to other areas.

In the post-industrial context the papers highlight different aspects concerning employment ambitions and opportunities of young people. Manufacturing employment was seen as a viable, stable, if restricted opportunity for working-class males (Nayak 2006). Deindustrialisation brought

changed values attributed to workplaces such as “[...] flexibility, keyboard proficiency, telephone communication skills and personal presentation” (Nayak 2006: 817), something out of step especially for traditional working-class males. If traditional working-class employment was considered as very masculine, accompanied by a "culture of machismo", upper-class occupations are no longer in-line with those values (Ward 2018). Deindustrialisation did not just result in job losses but also mis-aligned the structure of cultural codes in post-industrial communities (Pleasant 2019).

GOOD PRACTICE: Let's colour Gothenburg, Sweden

In 2016, the project Let's Colour Gothenburg received an EU grant with a clear goal: to get 100 youth into real, long-term jobs as painters by 2021. The project focused on 18-24-year-old youth to create new jobs in this deindustrialised city in Sweden from two perspectives: to find employment for disadvantaged youth and to create an offer for this undervalued yet deficient employment (painter). The method applied in Gothenburg involved, in the first stage, giving youth a taste of what it's like to work in the painting industry, all under the supervision of an instructor. The work involves not only such things as renovating an apartment, but also decorative painting like mural artwork. Those who show a real interest in the profession might be encouraged to enrol in an adult education programme that will certify them as a professional painter. Certification comes in the form of an apprenticeship journal that is decisive in getting these youth employments with a painting company. It also has to be stressed that the main initiator behind this project was the Swedish painters' association, wishing to foster and reinvent this career choice among youth.



Some pictures of youth in various painting projects

Source: <https://sattfargpa.se>

The project evolved further with the association Youth Power Europe, focusing on the young and connecting the painting industry with them, because very few were choosing a painting career, despite the steady high demand. The project became not only an employment venture, but an artistic project by holding various street-art (mural) events and competitions over the years. The effects were beneficial in various ways: getting employment for the disadvantaged youth (children of migrants), satisfying a high demand for a certain job, cultural events and tourism, fostering creativity of young people, city revitalisation, provision of EU funds (Erasmus+), etc.

Further information: <https://sattfargpa.se>

Youth unemployment is a regular topic in analysed papers. Particularly ex-mining areas in the UK feature this topic extensively. Overall deprivation and unemployment in those areas is greater than on average in England (Bright 2012b) and is increasing rapidly (Bright 2012a). Unemployment is a direct consequence of difficult socioeconomic (poverty, no education, crime records) or difficult family situations (having children with illnesses, etc.) (Bowen et al. 2017). Unemployment in deindustrialised areas can also become a generational problem where the young are the second or the third generation of unemployed (Iverson 2014). Even if an industrial town is successful in gaining new employment—as is the example of Coalville, UK where unemployment is below national average—new jobs are often poorly paid (Tyler 2004).

This brings us to the job quality of industrial places. In the past industrial era, skilled work was perceived as monotonous, but able to provide security and a job for life (Nayak 2006). Present jobs are different where stable yet physically demanding jobs in the industrial sector are being replaced by part time, low paid jobs with zero hour contracts where young people have to rely on welfare benefits to avoid poverty (Bright 2016). Precariousness has become the everyday context of lives and is defined with changing economic landscape, neoliberalism, globalisation and social mobility (Bright 2016). Nayak (2006) expands this notion to Western nation states, where deindustrialisation in the youth labour market is characterised by more casual forms of work, marked especially by part-time working hours, fixed term contracts, and pay scales that can dip below the adult minimum wage.

3.7 CREATIVITY & INNOVATION

Main highlights:

- Not well covered in literature, but highlighting that working-class youth are thoughtful and reflexive actors.
- Local people seen as “less creative” than newcomers, creative exploits are not acknowledged by policy-makers, but can be a vibrant, resourceful, and organised aspect of industrial city life.
- Youth can tell “unspeakable” community histories, making them available for a re-envisioning of aspiration, resilience and wellbeing, challenging (neoliberal) imaginary.
- Discussions on entrepreneurship are almost non-existent in the literature sample, implicit assumption that these places lack “per se” “entrepreneurial spirit” prevails.
- Creative work builds people's qualities and skills, enabling work, social networks, coming into existence in everyday life, through passions, skills, hobbies, creating their own creative industry.

Commentary:

Generally, the scarce literature on this topic highlights that working-class youth are thoughtful and reflexive actors—a fact often omitted in other existing literature. The examples here underline the capacity of young people in seemingly ignored places to generate innovative, original, and inventive ideas (Tyler 2004; Warren and Gibson 2011). Their exploits can become a source of pride and

optimism, adding to a quality of life and assisting a discrete sense of community within a city otherwise assumed to be bleak and duly problematized by planners.

These creative exploits of youth are often critically viewed by planners and middle-class leaders and therefore not regarded as creative, although they can be a vibrant, resourceful, and organised aspect of industrial city life (Warren and Gibson 2011). When given the opportunity, youth is creative via (social) media, films or celebrations, emboldened to speak of “unspeakable” community histories, thus making it available for a re-envisioning of aspiration, resilience and wellbeing. The often displayed resistance and refusal of youth—commonly derided as pathological hooliganism—can come to speak back to dominant and powerful policy frameworks and thus be conceived of as meaningful policy activism and individual empowerment (Bright 2015) (see also subchapter 3.3 Power hierarchies & social inclusion).

Discussions on entrepreneurship in connection with the youth in industrial cities are almost non-existent in our literature sample, it is mostly (implicitly) assumed that these places lack “per se” “entrepreneurial spirit”, an aspect also relevant for the employment category. Nevertheless, some papers point out the qualities and skills of young working-class people in supposedly imperilled industrial cities. These forms of vernacular creativity are typically excluded from the middle-class conceptions of the creative industries (esp. Warren and Gibson 2011).

Literature here critically remarks that culture and creative industries are seen as panaceas for declining industrial places, as new sources of employment and investment. But “creative” is mostly articulated through conventional understandings of the arts: galleries and performance centres, and incubating innovation in corporate science, technology, and engineering sectors. In contrast, an industrial identity is portrayed as a burden (cf. Warren and Gibson 2011). This has led in many towns and cities to the depletion of traditional “industrial” and “masculine” infrastructure, which has been replaced by new cultural industries.

Thus, this narrative positions young, local people and their values as “less creative” than newcomers (see also subchapter 3.1 Identity & values). With the general narrative portraying youth in industrial cities “lacking” capacities to cope with deindustrialising futures, literature as Warren and Gibson (2011) show how creative work can build young people's qualities and skills, mainly through passions, skills and hobbies. This “everyday cultural production” gives importance and relevance to people’s lives, while simultaneously enlivening the social fabric of cities. Nevertheless, it is also this everyday character of activities that sets it outside the standard “cultural” or “creative” categories. The often negative discursive associations of creative work by youth from working-class communities (young people, hyper-masculinity, migrant groups, risky behaviour, ostentatious aesthetics, and working-classness) is evidently too discomfiting, too distant from what counts as creative to as yet appear in strategies to re-orientate such places (Warren and Gibson 2011).

GOOD PRACTICE: Youth in Łódź, Poland

To encourage young people to stay and work in the city after completing their studies, a consortium of the municipality, three major colleges and some 300 employers in Łódź (Poland) have created a range of local inducements and incentive schemes for students and graduates since 2010.

The initiative is intended to counteract the trend for many young people to leave the city as soon as they graduate, and to demonstrate that Łódź is conducive to career development and provides a future for youngsters. Scholarships are offered and a website helps provide practical skills in writing CVs and in making contact with companies for jobs and internships, and free courses on communication, presentation or project management. Study visits to companies are also available.

The programme also organises a competition for the best business plan, with awards of consultancy and, for the winners, financial and material support and accountancy services for their company. Over its four editions to date the competition has received 354 entries, including 95 that were judged to be professional business plans and that have led to the setting up of 48 companies.

The programme has been widely promoted through college networks and at cultural and employment events, and has attained a high level of visibility among its target audience. In particular, it has ensured close cooperation between education and employers and has provided practical support and encouragement to young people, as well as stimulating creativity. It has also helped to develop an understanding of the relationship between youth and the city.



Caption: A flyer of the Youth in Łódź scholarship program

Source: <https://mlodziwlodzi.pl/poznaj-tegorocznych-stypendystow-programu-mlodzi-w-lodzi-2/>

The project addresses different target groups which can interact—the local creative community and youth, as well as tourists, artists and freelancers. It has been a venue for concerts, film screenings, workshops and seminars and also functions as a working space and garage hotel, as well as a community space. It is a good example of turning brownfields into valuable spaces and how to combine industrial culture & leisure activities with alternative tourism and accommodation. Especially creative tourism is fostered by using creativity enhancing formats (joint dinners, campfires with other artists). Taking some “time off” by renting their living and work spaces as long as they want, presenting a new concept of working environments.

Further information:

- <https://mlodziwlodzi.pl/about-program/program-description/>
- https://ec.europa.eu/assets/eac/youth/library/publications/creativity-innovation_en.pdf

3.8 PARTICIPATION & GOVERNANCE

Main highlights:

- Organisational and institutional aspects of youth participation and involvement are not well covered in the literature.
- Support programmes foster entrepreneurship and education, but following middle-class aspirations—neglecting the creative potential of the working-class youth for implementing policies.
- Creativity or creative pursuits of youth are devalued (despite their economic impact) and rejected/absent by formal support programmes.
- Youth clubs/organisations are important for policy implementation—functioning as hubs of youth activities.
- Mismatch between policies and world-views, when talking about youth in industrial towns. From outside view seen as hooliganism, but described as “belligerent aspiration”, fuelled by the belief of neglect by those in power and trauma of structural change.

Commentary:

When referred to, the scarce literature is rather critical of programmes targeting youth in industrial regions. While in some cases university engagement in deprived communities is portrayed as having a positive impact on youth (widening participation and higher rates of local students) (Trauth 2015), in general, the tone is of a neglect of working-class youth issues in revitalisation programmes. Such programmes are said to usually follow middle-class aspirations, aesthetics and target groups, while ignoring the creative potential of the working-class youth for implementing policies (see also subchapters 3.2 and 3.7). Creativity or creative pursuits of such youths, which do not follow middle-class norms and values, are devalued (despite their economic impact) and rejected/absent by formal support programmes (Warren and Gibson 2011). Additionally, support programmes often try to foster entrepreneurship and education, albeit aspects such as attractiveness of place and employment opportunities (to stem even further outmigration) are said to be equally important (Radu 2016). In this field, the coding also underlines the importance of youth clubs/organisations for youth policy implementation, also fostering diverse (progressive) values and attitudes of youth. Such centres can become important hubs of youth activities in old industrial regions with few other opportunities. The use and outreach of such centres is nevertheless often connected to the commitment and social skills of the staff.

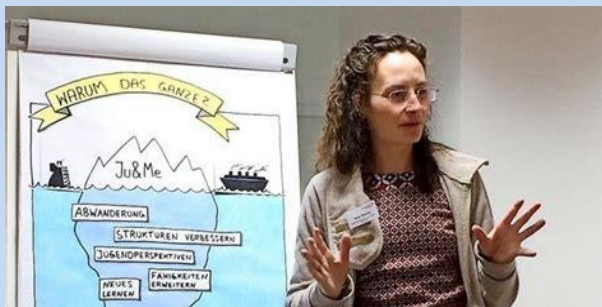
Overall, literature points to a mismatch between policies and world-views, when talking about youth in industrial towns. Bright (2012b: 225) describes youth attitudes in deprived former industrial regions of the UK as “*resistant aspiration*” mixing “*gendered solidarism, radical conservatism and autonomous social improvisation which sustains an on-going imaginary of local class values*”. This is fuelled at one side by the belief that those in power were not interested in youth views (underlined by the fact that young people often are not actively invited to community development planning and decision-making) and on the other side by the insubordinate history of regions and trauma of structural change and interconnected social upheaval (e.g. the miner’s strike in the UK). On the other

side, outside views on youth from working class backgrounds centre around notions of hooliganism and/or a lack of “ambition” – in turn projecting middle-class values and aims at these groups, which see unemployment and poverty mainly as self-inflicted and therefore as punishable (Bright 2012b, 2015). Therefore, policies mainly focus on fostering “aspiration” of young people and the performance of staff, both seen in the literature as part of a wider neoliberal agenda, which, along austerity measures, affects youth many-fold. A more serious dialogue and involvement of youth is generally seen as necessary.

GOOD PRACTICE: JU&ME, Germany

The “Ju&Me” pilot is a reverse mentoring project, training young people to be co-mentors advising local political leaders, administrators and business managers on specific topics related to local development. The project, which was funded under the LEADER Programme, ran in two German LEADER regions. Within the project, local youth contributed to the re-skilling of local leaders, helping them learn new digital skills and become familiar with the latest technologies and social media. Most importantly, young people are given the opportunity to express their point of views with local leaders, who through this closer engagement understand and recognise the youth perspective, which in turn then feeds into local development policies.

The project contributes to regional management of demographic challenges by involving young people in local planning, development and decision-making processes, as well as by motivating them to participate. Young people are able to communicate their views to decision-makers, to assess and give their input to regional development projects.



The logic of JU&ME project

Source: <https://www.lvz.de/Region/Wurzen/Jung-beraet-Alt-Neues-Projekt-in-Bennewitz-gestartet>

The main actors involved are local young people aged 14–25 on the one hand, and local political leaders, local administrators and business managers on the other. The approach rests on a reverse mentoring method, which shifts the usual learning perspective and trains young people to become mentors of local adult leaders. Mentoring stands for a mutual relationship with qualification and learning effects for mentees and mentors. Project duration was 18 months (2019–2020) and 11 tandems between local leaders and youth were created. Costs were around 50.000€ per region.

Further information:

- https://ec.europa.eu/info/sites/info/files/eu_regional_and_urban_development/topics/documents/youth_for_a_just_transition_mid-term_deliverable_report_final.pdf (English)
- www.cluster-verein.de/jume (German)
- www.leader-wesermuende-sued.de/projekte/projektsteckbriefe-2014-bis-2020/projektsteckbrief-mentorenprogramm.pdf?cid=gv (German)
- VIDEO: www.youtube.com/watch?v=bbQlAfyv0o (German)

4 CONCLUSIONS

The aim of this input paper is to provide a scientific background on the topic of youth outmigration from industrial towns and regions. We do that by performing a systematic review of 20 peer-reviewed articles dealing with youth challenges in industrial urban and regional settings. Addressing youth challenges in those areas properly can be key in influencing their decision to stay, go, or return.

One of the initial findings is that youth challenges are quite under researched in a context of industrial towns and regions and most of the selected case studies are strongly concentrated in the Anglosphere, with some exceptions from Nordic context and post-socialist Eastern Europe. Majority of the cases also exhibit a rather negative demographic and economic trends in a predominantly post-industrial context, where industry as an economic base has already left but industrial culture is still present. These findings revealed a research gap to analyse youth in industrial towns and regions also outside Anglosphere dominance and to also focus more on “functional” industrial places, where industry still presents a prevalent economic base. For instance, there are many traditional industrial regions in Central and Eastern Europe facing youth outmigration such as Idrija (Slovenia) and the Steirische Eisenstrasse (Austria). However, our knowledge about this demographic group in such a spatial context is very limited.

The systematic review process focuses on eight youth challenges, identified on the basis of international youth and industrial strategies. Popularity of each youth challenge in analysed papers varies in size. There is significantly more attention devoted to identity & values, education, training & skills, power hierarchies & social inclusion, medium attention to built environment & infrastructure, demography & spatial mobility, employment, and less attention to creativity & innovation, participation & governance. Examining these youth challenges into detail allows us to observe the state-of-the-art and, based on revealed knowledge gaps, develop a roadmap for further research.

Analysing young people’s identity and values exposed a higher relevance of several important institutions shaping their sense of belonging such as family, community, industry and schools. Family and community play an essential role in passing on mentalities, traditions and cultural capital, and developing a higher place attachment. Many young people decide to stay or return due to strong ties with their local environment. However, such symbiosis can also result negatively by imposing (too) high expectations and obligations, especially when given in disruptive family circumstances. Industry—where still present—is seen as a provider of security and community. In deindustrialized places, the loss of physical (dirty) work brought not only the economic downturn but also significant changes in value systems and the crisis of masculinity. Schools with their predominant orientation towards post-industrial discourses with different codes of values and individualistic trajectories seem to be pivotal in utilizing young people’s needs and capabilities.

Education is traditionally not seen as an asset in working-class communities. Such a notion in combination with an unadjusted education system not willing to address young people’s potentials often result in their low aspiration and self-esteem. The literature strongly suggests the need to adapt curricula in industrial towns and regions to better address place-specific requirements of

working-class youth as thoughtful and reflexive actors. The planners and middle-class leaders should also better recognize creative exploits of their own youth instead of giving higher value and focus to creative “outsiders”. Young people should be socially and economically more taken into account by decision-makers as they can be a vibrant, resourceful, and organised aspect of industrial city life.

Nevertheless, discussions on entrepreneurship are almost non-existent in the literature sample, implying that industrial towns and regions are seen to lack per se entrepreneurial spirit. Support programmes similar to formal education neglect the creative potential of the working-class youth and follow middle-class aspirations. For such reasons, the motivation for industry-connected jobs is low, although new jobs in services and creative sectors offer often more precarious employment possibilities.

Jobs are important but not the only factor to keep and/or attract young people to industrial towns and regions. Youth aspirations and decisions where to live are diverse, complex and not always rational. The literature suggests more attention should be paid to offering social infrastructure and cultural activities for youth as well as built environments such as recreational infrastructure and youth facilities. To this end, collaboration between authorities, universities and firms is essential.

Severe deindustrialization put many industrial towns and regions in a disadvantaged position. Not only have they lost the economic base and social security, but they also struggle for the lost pride and lower self-esteem. Youth in such places experience difficult times to thrive. The biggest obstacle seems to be the maladaptation of economic and social systems for young people’s needs and capabilities. Education, governance, employment, etc. often instil programmes that are not fit for the context of industrial towns and regions. Too many times they ignore place-specific industrial culture — grounded in the specific institutionalised routines of industrial structures, their incorporated conventions, beliefs, and production patterns, as well as the interlinked social factors beyond the factory itself. Industrial culture addresses a special, place-bound cultural setting, a concentration of specific expertise, attitudes, values, and traditions. If we want industrial towns and regions to be a more liveable place for young people, such notions should be more seriously taken into consideration.

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6 ANNEXES

Annex 1: Keywords used to design a search expression in Scopus, Web of Science and ScienceDirect

Type of industrial spatial structure	Youth
- industrial city	- youth
- industrial town	- young
- industrial region	- youngster
- industrial community	- NEET
- industrial centre	- student
- mining city	- apprentice
- mining town	- trainee
- mining region	- adolescence
- mining community	- teens
- mining centre	- intern

Annex 2: Search expression for Scopus, Web of Science and ScienceDirect¹

Keywords	
Search expression	("industrial city" OR "industrial town" OR "industrial region" OR "industrial community" OR "industrial centre" OR "mining city" OR "mining town" OR "mining region" OR "mining community" OR "mining centre") AND ("youth" OR "young" OR "youngster" OR "NEET" OR "student" OR "apprentice" OR "trainee" OR "adolescence" OR "teens" OR "intern")

¹ In contrast to Scopus and Web of Science, ScienceDirect allows only eight Boolean operators (AND, OR) at a time. To perform a search string, we had to break the search expression into smaller pieces.

YOUIND is implemented through the SI-AT INTERREG Programme co-financed by the ERDF.

Annex 3: Papers included in the final sample

Authors	Year	Title	Journal
Areschoug S.	2019	Rural failures: Representations of (Im)mobile young masculinities and place in the Swedish countryside	Boyhood Studies
Pleasant E.	2019	Dirty work: cultural iconography and working-class pride in industrial apprenticeships	British Journal of Sociology
Ward M.R.M.	2018	Acceptable Masculinities: Working-Class Young Men and Vocational Education and Training Courses	British Journal of Educational Studies
Bowen E.A., Miller B., Barman-Adhikari A., Fallin K., Zuchlewski D.	2017	Emerging adult homelessness in geographic perspective: A view from the Rust Belt	Children and Youth Services Review
Bright N.G.	2016	'The lady is not returning!': educational precarity and a social haunting in the UK coalfields	Ethnography and Education
Radu B.	2016	Aspects on the transformation and decline of mining communities in Romania	Journal of Settlements and Spatial Planning
Trauth E.M., DiRaimo M., Jr., Hoover M.R., Jr., Hallacher P.	2015	Leveraging a Research University for New Economy Capacity Building in a Rural Industrial Region	Economic Development Quarterly
Ivinson G.	2014	Ghosts from the past: Exploring community cultures and school cultures in relation to poverty	Improving Schools
Kaiumov A.T., Kanikov F.K., Iskhakova N.R.	2014	What Young Students in a Major Industrial City Think about the Prestige of Professions	Russian Education and Society
Klimt A.	2014	Searching for continuity and connections: Narratives of belonging from a post-industrial city	City, Culture and Society
Helgesen Ø., Nettet E., Strand Ø.	2013	"Brain Drain" or "Brain Gain"? Students' Loyalty to their Student Town: Field Evidence from Norway	European Planning Studies
Wattis L.	2013	Class, Students and Place: Encountering Locality in a Post-industrial Landscape	Urban Studies
Bright N.G.	2012	Sticking together! Policy activism from within a UK coal-mining community	Journal of Educational Administration and History
Bright N.G.	2012	A Practice of Concrete Utopia? Informal Youth Support and the Possibility of 'Redemptive Remembering' in a UK Coal-Mining Area	Power and Education
Brann-Barrett M.T.	2011	Same landscape, different lens: Variations in young people's socio-economic experiences and perceptions in their disadvantaged working-class community	Journal of Youth Studies
Bright N.G.	2011	'Off the model': Resistant spaces, school disaffection and 'aspiration' in a former coal-mining community	Children's Geographies
Warren A., Gibson C.	2011	Blue-collar creativity: Reframing custom-car culture in the imperilled industrial city	Environment and Planning A
Kloep M., Hendry L.B., Gardner C., Seage C.H.	2010	Young people's views of their present and future selves in two deprived communities	Journal of Community and Applied Social Psychology
Nayak A.	2006	Displaced masculinities: Chavs, youth and class in the post-industrial city	Sociology
Tyler K.	2004	Reflexivity, tradition and racism in a former mining town	Ethnic and Racial Studies

Annex 4: Contextual factors relevant for the interpretation of youth challenges in industrial towns and regions of the Global North

Reference	Country	Location	Geographical scale	Number of inhabitants	Socio-economic context	Demographic trends	Economic trends	Type of past industry	Type of contemporary industry	Other geographical characteristics	Youth age group	Other youth characteristics
Areschoug, 2019	Sweden	Karlskoga	town	27,562 (in 2018)	industrial	n.a.	n.a.	steel industries	weapons industry	de-industrializing rural periphery	15	lower secondary school
Pleasant, 2019	UK	Medway	region	277,855 (in 2018)	post-industrial	rising	stable	shipbuilding	car manufacturing, engineering	proximity of London; many people work in London	17-19	past and present engineering apprentices
Ward, 2018	UK	Unnamed town in Wales (pseudonym Cwm Dyffryn)	town	n.a.	post-industrial	n.a.	declining	coal-mining	n.a.	high levels of social and economic decline coupled with economic inactivity	16-18	3 young men attending vocational education trainings
Bowen et al. 2017	USA	Buffalo	city	255,284 (in 2019)	post-industrial	declining	declining	n.a.	medical, arts and culture	small city in the Rust belt	18-24	homeless youth (travellers and city residents)
Bright, 2016	UK	South Yorkshire; Derbyshire	region	1,402,918 (South Yorkshire in 2019); 1,053,316 (Derbyshire in 2019)	post-industrial	n.a.	declining	coal-mining	n.a.	de-industrialised coal-mining communities	n.a.	highly precarious group; marginalised and disaffected
Radu, 2016	Romania	quantitative analysis of statistical data for 383 communities; qualitative in-depth analysis of Borşa and Cavnic	town	27,611 (Borşa in 2011); 4,976 (Cavnic in 2011)	post-industrial	declining	declining	coal-mining	n.a.	located in rural areas	up to 14; 15-25	potential emigrants
Trauth et al. 2015	USA	I-99 corridor (Pennsylvania)	region	332,000 (in 2019)	industrial	declining	declining	n.a.	technology; manufacturing	brain drain of students; low levels of human capital; low ethnic diversity	n.a.	students
Iverson, 2014	UK	South Wales	region	940,000 (in 2019)	post-industrial	n.a.	declining	coal-mining and steel industries	n.a.	narrow valleys and mountains; remote and harsh landscapes; depressed areas	up to 14	working-class young people; siblings; students; socially excluded

Kaiumov et al. 2014	Russia	Naberezhnye Chelny	city	532,472 (in 2018)	industrial	stable	stable	car manufacturing, engineering	car manufacturing, engineering	relatively young, large, and dynamically developing modern city with a multi-ethnic population; large dependence on a single industrial enterprise (KamAZ)	14-18	young students
Klimt, 2014	USA	Fall River, Massachusetts	town	89,541 (in 2019)	post-industrial	declining	declining	whaling industry, textile manufacturing	n.a.	on a steady economic downslide; high unemployment, low income, poverty; negative image	late 20s	young college-educated adults who graduated at the top of their high school class and were still living in the wider geographic region.
Helgesen et al. 2013	Norway	Ålesund	town	66,258 (in 2020)	industrial	n.a.	rising	n.a.	maritime and furniture industries	student town	15-25	students at the bachelor's level
Wattis, 2013	UK	"Northtown" (a pseudonym)	town	n.a.	post-industrial	n.a.	declining	n.a.	n.a.	severe deindustrialization, followed by economic decline, poverty, unemployment, crime etc.	18-46	female students
Bright, 2012a	UK	Derbyshire (5 villages)	region	1,053,316 (Derbyshire in 2019); n.a. for villages	post-industrial	n.a.	declining	coal-mining	n.a.	former coal-mining communities	n.a.	youth involved in the Bus Stop project (youth public support programme)
Bright, 2012b	UK	Derbyshire (4 villages)	region	1,053,316 (Derbyshire in 2019); n.a. for villages	post-industrial	n.a.	declining	coal-mining	n.a.	de-industrialised coal-mining communities	n.a.	teenagers
Brann-Barrett, 2011	Canada	Cape Breton Island	region	132,010 (in 2016)	post-industrial	declining	declining	coal-mining, steel	coal-mining	island	17-30	10 disadvantaged and 16 university students

								industries and fishing				
Bright, 2011	UK	Three anonymous neighbouring former coal-mining villages in the Beldover district of Derbyshire in the East Midlands under pseudonyms: Cragwell, New Beldover and Coalbrook. Author calls them "the Model".	region	10,000 (Cragwell; year n.a.); 5,000 (New Beldover; year n.a.); Coalbrook (n.a.)	post-industrial	n.a.	declining	coal-mining	n.a.	severe deindustrialization and deprivation after pits closure	first group (14-18); second group (n.a.)	a group of young between 14 and 18 were NEET or at risk of becoming a NEET
Warren and Gibson, 2011	Australia	Wollongong	city	302,739 (in 2018)	industrial	rising	declining	coal-mining and steel industries	n.a.	imperilled industrial city setting; nationally known custom-car design scene in the city	19-30	young people in blue-collar, labour-intensive industries, hyper masculinity, migrant groups, risky behaviour, and working-classness
Kloep et al. 2010	UK	Two 'Community First' areas in former South Welsh mining communities.	region	n.a.	post-industrial	n.a.	declining	coal-mining	n.a.	adverse social settings (poor transport links, few facilities, including health, leisure and youth services and lack of employment opportunities)	16-18	teenagers
Nayak, 2006	UK	North-east England	region	n.a.	post-industrial	n.a.	n.a.	shipbuilding, coal-mining, heavy engineering	n.a.	precarity, deindustrialization	n.a.	2 groups of young men: 1) from families with a background predominantly in skilled labour, 2) from unemployed communities
Tyler, 2004	UK	Coalville	town	34,575 (in 2011)	post-industrial	rising	stable	coal-mining	high-tech industries and services	deindustrialised with significant immigration of foreign workers (Asians)	n.a.	young adults, recruited casually around the town generally in mid-twenties age group

Annex 5: Number of citations per youth challenge in selected papers

REFERENCE	Identity & values	Education, training & skills	Power hierarchies & social inclusion	Built environment & infrastructure	Demography & spatial mobility	Employment	Creativity & innovation	Participation & governance	TOTAL
Klimt, 2014	39	10	5	12	56	2	0	0	124
Brann-Barrett, 2011	38	16	24	34	2	0	0	3	117
Areschoug, 2019	48	16	7	26	0	7	1	0	105
Bright, 2016	24	10	30	11	0	14	2	1	92
Nayak, 2006	35	2	21	10	0	9	1	1	79
Warren and Gibson, 2011	7	10	13	2	1	6	17	8	64
Ivinson, 2014	18	23	11	4	2	4	0	0	62
Bowen et al. 2017	8	0	15	28	4	2	2	0	59
Bright, 2012a	11	8	11	3	0	3	12	10	58
Pleasant, 2019	16	17	3	1	0	14	0	0	51
Bright, 2011	14	17	10	5	0	3	0	1	50
Ward, 2018	14	26	4	0	1	2	0	0	47
Wattis, 2013	6	10	19	8	0	0	1	1	45
Helgesen et al. 2013	1	10	0	7	22	2	0	0	42
Trauth et al. 2015	0	25	0	0	10	3	1	0	39
Kloep et al. 2010	11	9	11	2	2	0	0	3	38
Tyler, 2004	7	0	18	2	1	1	1	2	32
Bright, 2012b	14	4	3	4	0	1	1	1	28
Kaiumov et al. 2014	4	5	0	5	0	10	0	0	24
Radu, 2016	0	1	0	1	7	4	1	4	18
TOTAL	315	219	205	165	108	87	40	35	1174
LEGEND	0	1-9	10-19	20-29	30-				

7 ABOUT THE YOUIND PROJECT

YOUIND deals with the issue of youth outmigration from peripheral industrial towns and regions from an industrial-cultural perspective.

The SI-AT INTERREG programme area is characterized by a relatively large number of industrial enterprises, which are often located in small and medium-sized towns. These places are facing new challenges, as new trends (e.g. Industry 4.0), increasingly demand for new, highly skilled workers. These employees are difficult to find, as especially younger people do not see these regions as attractive and leave, rarely to return. These developments do not only threaten industry, but also the socio-economic development of entire regions within the programme area.

To address this largely neglected issue, the YOUIND partnership combines academic and regional knowledge to raise institutional capacities. Both partner regions – Idrija and the Steirische Eisenstrasse – are rich in their industrial past and present, with both of them being on the UNESCO's heritage list and are today sites of global companies such as Kolektor and Voestalpine. The project seeks to use this specific industrial culture of place as a potential for strengthening the institutional capacity on youth outmigration in order to link young people closer to their region.

YOUIND will raise awareness on the topic via:

- Fostering cross-border knowledge exchange between stakeholders and developing long-term network structures in the regions, involving youth, business and institutional actors
- Developing jointly highly visible pilot activities on youth and industrial culture
- Long-term regional action-plans and transnational strategic advice

The aim is to promote social innovation and improve institutional capacities through pilot actions and long-term action planning. The partnership will also translate project findings to transnational policy recommendations, distributing knowledge on emerging topic within the programme area.

The YOUIND project is implemented by the SI-AT cross-border INTERREG A programme and co-funded by ERDF. The project run-time is from spring 2020 to spring 2022. For more information and regular project updates and results, please visit:

<https://www.researchgate.net/project/YOUID-Youth-outmigration-and-institutional-capacities-in-industrial-towns>

For more information on the project partner visit:

www.geographie.uni-graz.at

www.eisenstrasse.co.at

www.zrc-sazu.si

www.visit-idrija.si