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RAILWAY STATION MEGA-PROJECTS AND THE REMAKING OF INNER CITIES IN EUROPE
Across the world, railway stations have (re-) emerged as prime targets for ambitious urban redevelopment initiatives, and are thus likely to feature prominently in future debates over the ongoing post-industrial, post-Fordist restructuring of cities and regions. Debates over major inner-city rail stations, and their surrounding areas, illustrate the reinvigorated significance of urban cores as sites for property-led capital accumulation and as engines of economic growth. They also highlight the heightened relevance of both high-speed and conventional railway travel as an efficient and comparatively more sustainable means of intra- and inter-urban transportation. When we first started to immerse ourselves in the subject of rail station redevelopment mega-projects about three years ago, we were already well aware that as a topic it was under-researched and that a handful of in-depth case studies on a small set of high-profile projects from the 1990s to early 2000s unfairly dominated the scholarly debate (see Bertolini, 1996; Bertolini and Spit, 1998; Trip, 2007; Bruinsma et al., 2008; Peters, 2009).

Every architect and urban planner in Europe seems to know about Euralille. Most internationally-minded urban planners will also have some superficial knowledge of the large-scale redevelopment projects underway at Amsterdam’s South Axis, Utrecht’s Central Station, London’s King’s Cross Central, Paris’s Rive Gauche/Austerlitz and Stockholm’s Västra City, to name some of the most prominent. Most European architects and urban designers, meanwhile, will be familiar with the high-profile rail station starchitecture projects already completed in Lyon St. Exupéry, Liège-Guillemins (Calatrava), Dresden (Foster) or Berlin (von Gerkan), and most newspaper readers in Europe will by now have come across at least one article reporting on the tumultuous events unfolding in the Southern German city of Stuttgart where tens of thousands of opponents took to the streets to demonstrate against the planned Stuttgart 21 rail station mega-project, challenging politicians and railway officials to a public debate over the rationality of the project. We fully expected to find dozens of other rail station redevelopment projects of similar magnitude across Europe, and wanted to reach out to other scholars across the continent in an ambitious attempt to unite and broaden our knowledge of the subject.

What we found, both in talking to and engaging with our peers and in doing our own research, was overwhelming. As it turns out, various versions of rail station (area) mega-projects – broadly defined here as private, public or public-private sector-led transport, real estate, and/or public space
investments inside and adjacent to major railway stations which total 100 million Euros or more – either have been, or are currently being, undertaken in almost every large city in Europe. In many cases, the rail stations are directly adjacent to underutilized waterfronts which have also become targets of comprehensive revitalization initiatives. Yet while waterfront redevelopment has received high-profile scholarly attention in the last decades, hardly anyone engaged in the study of comparative urban development seems to have noticed how widespread and significant the related complex phenomenon of rail station adjacent redevelopment really is. Our special issue seeks to address this glaring omission in the scholarly literature on two main fronts. For one, it presents deep, inside coverage on a number of lesser known and/or more recent cases of large-scale urban redevelopment projects centred around rail stations. Secondly, it seeks to embed these accounts in a wider academic debate over rail stations as strategic sites in the post-industrial restructuring of urban cores. It is our firm belief that inter-modally connected, mixed-use developments at centrally located rail hubs represent a crucial element in the challenge to develop more sustainable human settlements. Our research also concluded that to date, very few – if any – of these complex mega-projects have appropriately realized their enormous promise and potential.

Railway Stations: Past, Present and Future

Before offering any further musings on twenty-first century post-industrial urban futures and the role rail stations may or may not play in them, it seems pertinent to first briefly reflect on the past. As Richards and Mackenzie (1986, p. 2) appropriately noted in their introductory chapter on ‘the mystique of the railway station’: ‘there is perhaps no more potent or dramatic symbol of the Industrial Revolution than the railways’. Railway stations represent a crucial piece of modern urban history. Built as ‘Cathedrals of Progress’ designed to impress citizens and visitors alike, grandiose railway stations have always helped forge the public image of the metropolis in which they are located. In essence, rail stations’ century-long history is now comprised of three main phases: first, the golden ‘Railway Age’ from the late 1800s to the mid-twentieth century, when railways played a crucial role in propelling cities into the modern industrial age; second, the phase of increasing decline and neglect after World War II, when the Automobile Era reached its peak; and finally, the more recent ‘Railway Renaissance’ in the post-industrial era when city centres are being re-discovered as attractive sites for working, living, visiting, and for entertainment (Banister and Hall, 1993; Wucherpfennig, 2006).

From the never-quite-so-humble nineteenth-century beginnings, the business of railway station building brought together basic infrastructural and highly symbolic functions. Railway stations were and are important gateways to their cities and to the world beyond, symbols not just of progress and modernity but also of longing, nostalgia, farewell and reunion. The railways literally shrank and obliterated distance, compressed and unified time across Europe, and enabled late nineteenth-century cities to grow at a pace unimaginable just a few decades earlier. Railway stations, with their imposing glass and steel halls and their elaborate arrival halls, emerged as an entirely new building form (Meeks, 1956), and became instantly loaded with symbolic meanings as the new ‘palaces of modern industry’. They were built by powerful private railway companies eager to put their newfound economic might on public display. As nineteenth-century French writer Théophile Gauthier once put it: ‘These cathedrals of the new humanity are the meeting points of nations, the centre where all converges, the nucleus of the huge stars whose iron rays stretch out to the end of the earth’ (cited in Richards and Mackenzie, 1986, p. 3). Many of the larger
railway stations rising in the centres of Europe’s most important metropolises were also true ‘cities within a city’ with bustling activities and around-the-clock services. The station areas, however, were typically divided into two incongruent, socially segregated environments: leading from a representative plaza in the front of the building, tree-lined boulevards with expensive hotels and bourgeois business establishments would connect the new centre around the station with the older parts of the city near the town hall, market square and central cathedral. The back of the station, meanwhile, would typically exhibit a mix of less desirable uses comprised of noisy, often highly polluting factories and workshops alongside squalid working-class rental housing and commercial establishments that typically included the cities’ most notorious red light venues.

In the second half of the twentieth century, rail travel became increasingly eclipsed by automobile travel. Both bourgeois and petit-bourgeois families increasingly favoured suburban homes with manicured lawns over centrally-located urban residences. Many rail stations also had been completely destroyed in the First and Second World Wars, only to be resurrected as much lesser buildings flanked by uninviting surroundings and parking lots or structures. The inner-city neighbourhoods around the station further deteriorated into undesirable quarters which were distinctly separate from the nicer shopping districts in town. Rail travel became seen as belonging to a bygone era, with steam engines becoming the stuff of romantic musings about the past, and rail stations featuring more prominently as scenic backdrops in movies than as part of people’s daily travel experiences. In Europe, this ‘era of decline’ lasted well into the 1980s. In many North American cities, it even extends well into the present.

Since the 1990s, however, another turning point in the history of rail station development can be discerned. There are five key factors contributing to this ongoing renaissance process, most of them well-documented in the scholarly literature:

1. The ongoing deindustrialization of cities. This has made large portions of centrally-located, station-adjacent land available for urban redevelopment.

2. The advent of high-speed rail in key countries across Western Europe. This has made rail travel highly competitive again, especially for inter-city journeys of up to 500 km.

3. The privatization of state-owned railway companies across Europe. This has resulted in a new profit-oriented behaviour on the part of railway companies. They now take an active interest in commercially developing their impressive real estate holdings and/or creating independent private real estate companies to market former railway lands.

4. The complex urban restructuring processes currently under way as part of economic globalization. This has resulted in a rise of urban boosterism across Europe with cities behaving increasingly more like urban entrepreneurs than public institutions. City leaders actively compete for FIRE (finance, insurance and real estate) and other service sector firms as well as entertainment, cultural and tourism uses, wooing visitors and ‘creative industry’ workers into their revitalized city centres, re-branding their cities as somehow ‘unique’ and especially liveable, attractive and conveniently accessible locations for profitable businesses.

5. The paradigm shift in transport and land-use planning away from car-oriented, functionally segregated cities towards denser, more walkable and transit-oriented mixed-use settlement patterns. This discursive shift has put rail travel firmly back on the agenda of urban and regional planning, encouraging public officials and urban planners to actively reach out to railway companies in search of public-private partnership opportunities.
The papers in our special issue will address these factors from a variety of perspectives, described in more detail below.

**Context and Key Contents of this Special Issue**

All but two of the articles in this special issue originated as presentations at an international symposium held at the Technical University Berlin in Autumn 2009 entitled ‘Railways, Real Estate & the Re-Making of Cities in the 21st Century: Rail Station Area Redevelopment Mega-Projects in Europe & Beyond’. The two-day gathering brought together a group of two dozen younger and older scholars from around Europe. The conference tone was set by an introductory keynote by Heiner Monheim, Professor of Urban Geography at the University of Trier, who presented a generally critical view of railway and rail station mega-projects in Germany. He questioned whether rail station mega-projects could ever fulfil the promise of delivering sustainable urban development. In his view, German Railways cherry-picked schemes and injected enormous financial and political resources into a small number of large, high-profile projects at the expense of many smaller but not necessarily less worthy projects. This served as an appropriate reminder that, as with all urban mega-projects, the crucial question of opportunity costs looms large over all the case studies presented in this special issue:

Rail stations apparently used to be highly valued symbolic spaces, transport hubs and locations with great urban design significance. But over the course of time, given changed priorities and transport policy concepts, rail stations were treated more and more selectively, large parts of the rail system were increasingly neglected, many were cut off and closed. Political interests and investment power targeted the megaprojects. This results in a very ambivalent situation of a very notable commitment (‘all show’) on one hand and an otherwise criminal neglect on the other hand (‘no substance [beyond beacon projects]’). So it is not easy to form an objective opinion with regard to the much invoked Rail Station Renaissance. After [listening to] the full-bodied statements of the railway executives, state and federal ministers and after looking at the much-quoted ‘beacon projects’ one might gain the impression rail stations in Germany once again enjoy excellent prospects and the renaissance is in full swing. Upon taking a closer look at the sizeable rest, however, things appear very differently, [and] de-investment, planning vandalism and denials of progress continue. (Monheim, 2009, p. 5)

Heiner Monheim also had more uplifting news to deliver, however, ultimately pointing to several best practice examples in smaller and medium-sized cities in Germany and Switzerland (e.g. Karlsruhe, Usedom, Siegburg, Biel, and Basel) where railway stations and their surroundings had been appropriately refurbished to ensure convenient and seamless access via non-motorized and public transport, where station plazas and pedestrian areas had been redesigned to make them more appealing and where new commercial and entertainment functions had been integrated into the physical environment inside or adjacent to the station. In the end, symposium participants agreed, such careful and sensible urban design and planning strategies are crucial for ensuring the success of any rail station redevelopment, regardless of size or location.

In addition to a total of thirteen inspiring presentations in four different sessions, the symposium programme also included a site visit of Berlin’s most impressive railway mega-project in recent decades, the new Hauptbahnhof (Central Station). Located on the Spree River close to Berlin’s government district, the Hauptbahnhof succinctly illustrates both the aspirations and the problems associated with rail station mega-projects more generally. The station, which represents just one part of a gigantic overhaul of Berlin’s rail infrastructure (Peters, 2010), is celebrated as an architectural and engineering masterpiece and an attraction for Berlin’s visitors and residents alike. Critics, however,
have objected to the station’s enormous scale and costs as well as its negative consequences for West Berlin’s historic Zoo station (Bahnhof Berlin Zoologischer Garten) which was virtually cut off from long-distance rail travel following the opening of the Hauptbahnhof in 2006. In addition, critics also attacked the urban development measures surrounding the station for being largely commercial, architecturally banal, and failing to move forward – all criticisms which represent recurring concerns in this issue. We present a mix of qualitative and quantitative research-based analyses covering a broad range of both well-known as well as lesser-known cases.

Following this introduction, Deike Peters and Johannes Novy start off the issue with a conceptual and empirical examination of train station area development (or TSAD for short) across Europe. Drawing on the results of a survey of hundreds of projects, their contribution elaborates on the definitional problems related to the meaning of train station area redevelopment, discusses the bewildering variety of development projects over the past twenty years, introduces a typology that classifies different project types by dimension and overall objective, and discusses some key issues that characterize rail station area redevelopment today.

Next, Luca Bertolini, Carey Curtis and John Renne focus on what has become known as ‘transit-oriented development’ (or TOD for short) as a specific approach to station area projects. Following a review of the changing factors driving station area redevelopment, their contribution provides an analysis of emerging approaches and TOD practices worldwide and concludes with a discussion of the implications these experiences hold for current and future initiatives in Europe.

Anastasia Loukaitou-Sideris, Dana Cuff, Tim Higgins and Orly Linovskiy then take a closer look at high-speed rail development (HSR) and its implications for local development. Drawing on an extensive literature review and a Delphi survey of HSR planning experts from across the globe, they elaborate upon the positive and negative impacts of HSR stations at a local level; the successes and failures of HSR systems globally as well as the prerequisite economic, real estate, policy, transportation, urban development, and municipal behaviour variables that have to be in place for ‘desirable development to take place around HSR stations’. They also discuss the relevance of their research for California, which has plans to build a new HSR line linking the Bay Area to Southern California in less than three hours travel time.

Focusing on Berlin, Gabriel Ahlfeldt’s contribution is concerned with rail development’s impact on urban economies and on local real estate markets in particular. Contrasting the impact of railway development during the late era of the industrial revolution with the period after unification, he finds that the productivity gains typically ascribed to intercity connectivity by various agglomeration theorists have not thus far materialized in post-reunification Berlin. He shows that the costly overhaul of the city’s inter-city rail system instead has had at best a weak impact on real estate markets and the wider economy.

Moving the debate across the Channel to London, Michael Hebbert elaborates on the ongoing, multi-billion London Crossrail project, a new express rail link running east–west across the British capital. Crossrail has been described as the largest transport infrastructure investment in the history of the United Kingdom, yet it largely refrains from the bold architectural and urban development aspirations that characterize similar projects of such gigantic proportions. Hebbert illustrates how Crossrail’s stations have been designed as a ‘series of keyhole operations … to minimize redevelopment impacts’ and how they represent a fascinating counter example to the more common trend to use above-ground stations as architectural showcases and catalysts for local regeneration.

Georg Speck then provides a personalized account of the history and failure of the Frankfurt 21 mega-project. Speck presents
an in-depth account of the ultimately futile attempt to turn Frankfurt’s central station from an above-ground terminal station into a modern, underground through station. His is the perspective of an insider involved in the political battles surrounding the project, providing fascinating insights into the power and interest struggles and the considerable contingencies that typically characterize rail station (re-)development.

Those are also key concerns in Richard Wolff’s contribution on ‘The five lives of HB Südwest – Zurich’s main station development from 1969 to 2019’ which provides a critical discussion of the decade-long struggle surrounding the development of Zurich’s main station. Analyzing the various phases of planning with a special emphasis on the current planning and construction process, Wolff reflects on the relations and the tensions between the various stakeholders/agents, participants, the media, and public opinion; the winners and losers involved in the struggle, especially ‘in the face of the new metropolitan mainstream’ (Schmid and Weiss, 2004) pervading the contemporary urban process.

Closing out the issue, Johannes Novy and Deike Peters focus on the hugely controversial Stuttgart 21 rail station mega-project in Southern Germany, providing a timely, up-to-date review of the project’s development history from its inception almost twenty years ago to the referendum held in November 2011 which finally cleared the way for the project to move forward. The ongoing struggle surrounding Stuttgart 21 represents a complex and often contradictory story that defies premature or overly simplistic conclusions, while reminding us that rail stations are no ordinary places. They are places with a distinct character and identity that serve a multitude of important functions in urban environments – not least as key reference places in citizens’ lives. The weekly mass rallies for and against Stuttgart 21 over the past two years have demonstrated how deeply people care about ‘their’ railway stations and the developments they undergo. As urban scholars, we sense a heightened responsibility to pay closer attention to rail stations and their surrounding areas in the future. Hopefully this issue represents a solid first step in this direction.

REFERENCES
Train Station Area Development Mega-Projects in Europe: Towards a Typology

DEIKE PETERS with JOHANNES NOVY

Addressing conceptual and empirical gaps within the field of train station area development (TSAD), this contribution first distinguishes two main perspectives for considering TSAD: one focusing on sustainability, the other on urban competitiveness. Drawing on data from hundreds of projects in Europe, the article then identifies four different TSAD types: strategic integrated; station renaissance; urban development; and transport development. After a discussion of emerging issues (converting terminals into through stations, covering tracks, understanding giga-projects, and synergetic adjacencies), this article concludes that development and decline are still happening simultaneously, with railway’s neoliberal rationalization processes leading to upgrading in central, high-profile locations and downgrading and neglect in others.

Contextualizing Train Station-Oriented Development

Research on the so-called ‘renaissance of railway stations’ and the coming of Europe’s second railway age has proliferated in the last two decades (see especially Banister and Hall, 1993, and Bruinsma et al., 2008). Nevertheless, as a comparative field of study, train/railway station area development – hereinafter referred to with the acronym ‘TSAD’ – remains severely under-researched. This contribution seeks to address several conceptual and empirical gaps within the field. We clarify existing definitional problems, introduce a new framework for looking at TSAD and elaborate on its current realities in Europe. We enumerate and discuss the bewildering variety of development projects planned over the past 20 years across Europe. We also introduce a typology that classifies different project types by dimension and overall objective, and discuss some key issues that characterize TSAD today. Finally, we summarize our main findings and outline needs for future research.

Comparative studies on built environment issues have much to learn from a closer look at recent developments around major rail hubs. Our new acronym ‘TSAD’ is obviously a nod to the better-known acronym ‘TOD’, or ‘transit-oriented development’. Originally largely confined to North American debates over how to combat urban sprawl using principles of ‘smart growth’ and ‘New Urbanism’ (Katz, 1994; CNU, 1999; Calthorpe and Fulton, 2001), the term ‘TOD’ now enjoys great prominence in the international planning literature (Curtis et al., 2009; Bertolini et al., 2012, this issue). In essence, TOD is a relatively new planning philosophy designed to address the root problem of automobile dependence in post-World War II settlement patterns. Boarnet and Crane (1998)
defined TOD as ‘the practice of developing or intensifying residential land use near train stations’, whereas Bernick and Cervero (1997, p. 5) more comprehensively defined it as ‘a compact, mixed-use community, centred around a transit station that, by design, invites residents, workers, and shoppers to drive their cars less and ride mass transit more’. TOD touts the transformative power of rail as an attractive mass transit mode (Still, 2002; Cervero et al., 2004; Dittmar and Ohland, 2004; Dunphy et al., 2004). As Bertolini et al. (2012) also demonstrate in this issue, there is thus a clear link between more US-centric scholarly debates on transit-oriented development and more European-focused debates on train station (area) re-development. TOD’s key challenge, of course, is the successful co-location of activity centres and residences close enough to either end of a transit trip to make rail (or, alternatively, bus rapid transit) a viable and attractive alternative to the motorcar. Otherwise, one only ends up with transit-adjacent development or ‘TAD’, as TOD’s inferior cousin, i.e. developments which are located near transit (or train) stations without really taking advantage of this proximity (Parsons Brinckerhoff Quade & Douglas, 2001; Renne, 2009).2

Regardless of the exact term or acronym used, we argue that more systematic attention should be directed towards two interrelated phenomena which are specific variants of development at and near transport nodes, namely:

- the (re)development of major, inner-city railway station buildings into centrally located, intermodal hubs; and
- the (parallel) (re)development of under-used land and development rights inside or immediately adjacent to the station buildings.

Thusly defined, TSAD is different from development at other transit nodes in that major rail stations have a much wider reach, providing fast connections not just across entire metro regions but across countries, and, after the advent of high-speed rail, increasingly across Europe. The place qualities of such developments are also different in that railway lands typically encompass large stretches of underutilized land in central locations. As an emerging field of inquiry, research on TSAD has not yet become fully coherent. Several contributions in this special issue indicate that this lack of coherence partially stems from the fact that there are a number of related, yet analytically distinct starting points for looking at this phenomenon. Seeking to simplify the matter analytically while at the same time moving towards clearer typologies, we argue that at minimum, there is a twofold distinction to be made between a ‘sustainable transport and land-use’ perspective and an ‘urban revalorization/restructuring’ perspective. While the two perspectives are partially overlapping and partially complementary, both also have distinct micro-, meso- and macro-level implications.3

The ‘Sustainability’ Perspective: TSAD and Sustainable Transport and Land Use

Apart from the real, on-the-ground physical restructuring effects, the re-emergence of centrally-located railway stations as focal points for urban activity carries strong symbolic meaning: it further solidifies European cities’ break with their post-war legacy of pursuing functionally segregated, car-oriented settlement patterns which privileged individual motorized transport over collective and non-motorized forms of travel. As such, promoters of TSAD projects are able to connect their various proposals to a powerful new ‘sustainability’ paradigm of ideal settlement structures featuring walkable, transit-oriented urban cores with lower carbon footprints than their industrial-age predecessors, lowering overall vehicle-kilometres travelled (Banister, 2008; Ewing and Cervero, 2010; Gehl, 2010), and inviting ‘smart’ and ‘green’ energy efficient
The best known example remains the Dutch ABC-policy where inner-city A-locations are described as those transit-accessible locations close to the main railway stations that have limited parking and are not easy to reach by car (Elsenaar and Fanoy, 1993; Beatley, 1999, p. 113). Another noteworthy concept is that of the British ‘transport development areas’, which have been described as ‘a cross-sectoral mechanism for delivering higher density development around public transport nodes’ (Hines et al., 2005, p. 9). EU-level policy documents also actively tout the spatially transformative potential of rail for cities (see figure 1).

At the meso (city-wide) level, major train stations emerge as the new, inter-modally connected spaces that link the various parts of the city: inside and outside, old and new – becoming the new centres of the city, with high-capacity rail transit lines stretching into the metro area like ‘fingers’ (Copenhagen) and linking neighbourhoods like ‘planetary clusters’ (Stockholm) (Cervero, 1998). At the macro (inter-metropolitan) level, this new paradigm views high-speed rail links as the crucial backbone infrastructures enabling this new vision. According to its most recent White Paper on Transport, the European Union aims to triple the size of its existing high-speed rail network by 2030 and hopes that by 2050, the majority of medium distance passenger travel will be by rail (European Commission, 2010, p. 10). In short, in many ways, Europe’s propagated ‘rail renaissance’ emerges as the quintessential infrastructure centrepiece for the successful ‘ecological modernization’ of the continent, both in real and in symbolic terms (see also Peters, 2003).

The ‘Urban Competitiveness’ Perspective: TSAD and (Neoliberal) Urban Revalorization/Restructuring

The other key reason TSAD is so enthusiastically promoted by both public and private actors is its frequent association with large-scale urban restructuring schemes designed...
Apart from Bertolini and Spit's (1998) and Bruinsma et al's (2008) book-length works, the existing literature on train station projects consists mostly of very small or single case-studies with relatively little connection, let alone comparability. While carefully crafted case studies advanced our understanding of particular projects and aspects of TSAD, there seemed to be few attempts to move beyond case-specific research. This lack of quantitative comparative data prevents us from assessing the full extent and scope of investments over the past decades and from exploring development trends across space and time.

Even more problematically, most scholarly attention thus far has been devoted to a few cases within a limited geographical region. These cases include particularly prominent and widely publicized projects like King's Cross in London, Euralille, or Amsterdam Zuidas. Existing case studies also reflect the locations (and locational preferences) of those authors who are active in the field, particularly the lively scholarly community in the Netherlands which has generated a substantial body of knowledge concerning developments in that country. This stands in stark contrast to the paucity of available studies concerning developments elsewhere, including developments in several traditional 'railway nations' such as Germany and France. Train station development has also remained a somewhat 'fuzzy' concept analytically (Markusen, 2003). Bertolini and Spit (1998) popularized the idea of conceiving train stations and their surroundings as both nodes within wider networks of mobility and particular places – or activity poles – within cities to differentiate train station area redevelopment initiatives from other large-scale projects. This node/place distinction remains an important contribution. Noting the ambivalent nature of train station areas, they also identified a number of 'recurring characteristics' or 'common denominators'. Train station redevelopment projects, they argued, are 'by definition' large projects –

Train Station Area (Re)Development: Taking Stock

The initial impetus for our research was the realization that there is a whole array of TSAD projects out there which had not been properly investigated and accounted for.
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projects of a particular size and scope that combine investments in stations’ function as ‘transportation interchanges’ and ‘activity poles’, and involve a ‘dominant presence of both public and private parties’ in the realization process (Bertolini and Spit, 1998).

Yet for the purpose of analyzing train station redevelopment at large, we found this definition to be too restrictive. TSAD can take on a large variety of forms, and certain projects might not share the ‘common denominators’ Bertolini and Spit put forward over a decade ago. Moreover, we wondered whether a biased look towards ‘large’ projects might not obscure a larger, more complex picture of development occurring at and near rail stations more generally. Bertolini et al. (2012, this issue) now argue that the frame for analysing station area projects has moved from a ‘property capitalisation’ perspective in the 1980s to an ‘urban megaprojects’ perspective in the 1990s towards a ‘transit-oriented development’ perspective since 2000. While we like the principle idea behind this distinction, we disagree that these different development frames can be so clearly associated with different decades. According to our own findings, different types of TSAD have always co-existed. Consequently, we argue that it is precisely the absence of a more inclusive typology of TSADs that has limited analytical advancement in this field of research in the last two decades.

We found that there is in fact no broad empirical basis to substantiate the much repeated claim that train stations and their surroundings are experiencing a ‘renaissance’. There is an emerging body of literature and a growing number of case studies that all indicate that major redevelopment activity at or near stations is proliferating, but no one has comprehensively tracked the full extent and scope of rail station-related investments over recent decades. So a key objective of the German Research Foundation-funded research project, which led to the publication of this special issue, was to ‘take stock’ of the vast multiplicity of projects happening at or near stations and move beyond the ‘bold, big, and beautiful’.

Our overall goal was to arrive at a general idea about all the TSAD projects planned across Europe in the past two decades. Given the vast breadth and scope of the phenomenon, certain restrictions were inevitable in order to make our work manageable. We focused on developing an initial inventory of TSADs at main intercity train stations in all European cities of at least 100,000 inhabitants whose total investment volumes exceeded €100 million over the course of a decade. Lacking a pre-existing database to draw on, we used national rail companies’ and cities’ official websites as well as a variety of online sources and newspaper archives to investigate when and where development activity had been or was taking place near the stations. Combing through a list of over 500 rail station sites in 437 cities, the sheer number TSAD projects already built or currently underway proved impressive. We identified 136 projects with investments of €100 million or more, including fifty-two with total investments of €500 million or more. Projects proliferated in cities of varying sizes across a whole range of nations, including countries with comparatively less developed rail networks such as Portugal or Bulgaria. Our inventory recorded both the highest number and the largest investments in Germany and Great Britain.

Developments certainly accelerated over the past decade, as roughly two-thirds of the projects identified came into being between 2000 and 2010. Several factors contributed to this, especially ambitious programmes launched in the late 1990s and early 2000s by national railway companies, such as Italy’s RNFE and Portugal’s REFER to overhaul train stations and put properties to better use, as well as record-breaking transport infrastructure investments by the EU and national governments. Spain has supposedly put more than €30 billion into its high-speed rail programme since inception. Further, economic conditions in the early 2000s were still
favourable and inner-city locations became increasingly desirable places in which to live, work, invest and conduct business.

We are confident that both the actual number and magnitude of projects is even higher than what we were able to document. The available data ultimately proved not robust enough to allow for detailed quantitative analysis, so contrary to our original intentions, we present a mostly qualitative summary assessment of our findings. Our inventory nevertheless provides a solid starting point for more systematic survey research in the future.5

More than ‘Big, Bold, and Beautiful’: Typifying TSAD

On the basis of our European-wide stock-taking, we distinguish between four main categories of TSAD project: strategic mega-projects, station renaissance projects, transport projects, and urban development projects. Boundaries between different project types frequently overlap, of course, and overly neat typologies always risk oversimplification, but the following tentative typology should nevertheless prove helpful for future investigations.

1. Strategic Mega-Projects. Strategic mega-projects are essentially ‘the big and the bold’ (though not always ‘beautiful’): those that clearly meet Bertolini and Spï’s (1998) original definition of train station area redevelopments as projects that combine the (re)-development of station facilities with significant urban development and transportation infrastructure investments, most notably national-level investments in new high-speed rail nodes and networks. They are ‘strategic’ in nature in that they typically form part of wider planning initiatives at different policy levels and aim at triggering multi-dimensional changes far beyond the geographic confines of the projects themselves. The supra-regional dimension of the scheme is often underscored by referencing Europe in the name or motto. Examples of these most expensive and complex projects are Stuttgart 21 in Germany, dubbed ‘Europe’s New Heart’ by its promoters (also see Novy and Peters, 2012, this issue), the multi-billion Sagrera project in Barcelona, touted

Figure 2. Number of recent and current TSAD mega-projects in Europe (1990–2010).
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Figure 3. A fourfold typology of train station area development mega-projects.

as the biggest public investment project in the whole of Spain, as well as Europoint in Brno, Eurallantique in Bordeaux and Euro-méditerranée in Marseilles. With construction costs frequently up €5 billion or more, they are perhaps best described as ‘giga-projects’ (Peters, 2010). They are brought about by complex governance arrangements involving a broad array of stakeholders on multiple scales and substantial public sector involvement. Despite a larger macro-context of increased private sector participation in urban and transport development decision-making and implementation, these strategic TSAD projects still depend overwhelmingly on, and arise from, active government intervention and facilitation. They resemble developments from previous eras of large-scale project development (Altshuler and Luberoff, 2003; Fainstein, 2008) albeit with the key difference that their respective public-private partnerships tend to have a greater bias towards profitability and competitiveness.

2. Station Renaissance Projects. In this category, the major scope of work is devoted to the (re)development of station facilities. Broader transportation and urban redevelopment measures beyond the immediate confines of the station are of secondary importance. Spanning the entire array and mix of development types, many such station-only projects can be identified across Europe. Numerous grandiose historic stations have been beautifully restored to their former splendour, at the same time as new shopping and entertainment uses have transformed the station interiors into key urban destinations even for non-travellers. The mixing of both old and new elements is common in cases where high-speed service is brought into long established, historically significant railway terminals at the core of major cities. Dresden’s historic Wilhelmine railway station, for example, was restored according to architectural designs by Sir Norman Foster that included beautiful new glass roofing. These ‘renaissance’ projects are imbued with symbolic overtones evoking notions of municipal pride and the grandiosity of bygone eras. Project promoters and their architects stress
how train stations once again serve as impressive city gateways, reasserting their character as quintessential civic spaces bustling with activity and people. As Sir Norman Foster noted with regard to Dresden:

[The train station] is the gate to the Florence of the Elbe ... Like a dynamo in the city, it moves a lot of people for commuting and leisure. And the coming and going of strangers from all over the world ... is concentrated in this special place as well... The way in which a train station 'engages' itself as a gateway for its city is a very important question for that city's future. It is an indicator for the city's quality and for its quality of life.4

Such rhetoric, however, obscures that most station renaissance projects are ultimately driven by other, less benign considerations. At the same time that historic preservationists and star architects work to re-elevate the aesthetic and civic appeal of train stations, many are effectively transformed into massive 'shopping malls on rails' – often to the point of being largely stripped of their civic character. As former state-run railway companies have been transformed into privatized, profit-oriented businesses, the commercial exploitation of stations has become a favoured strategy to generate additional revenue and profit. The main stations in Leipzig, Cologne and Hannover Central in Germany were all redeveloped this way, as was Vienna's recently re-opened West station. The French Railway Company SNCF also partnered with retail real estate developers to transform several of their stations, including the historic Saint-Lazare train station in the heart of Paris.

3. Transport Development Projects. Transport development projects are those that are primarily concerned with the development of transportation infrastructure and railway stations' function as transport nodes – even if their place-function is usually also considered and investments not directly tied to transportation typically also occur. The emphasis here is on turning station areas into intermodal hubs that efficiently connect different intercity, regional, and local public transport systems. As noted above, the major impetus for this typically, but not always, comes with the construction of new high-speed rail lines. In the 30 years since the opening of Europe's first purpose-built high-speed rail route, the TGV South-East line from Paris to Lyon, dozens of new stations or station expansions have been built all across Europe in order to accommodate the faster trains. In many of these cases, stunning new buildings have been erected. Prominent

Figure 4. The renovated main railway station in Dresden.
(Source: © Foster + Partners; photo: Nigel Young)
examples of such urban ‘wow-factor’ projects featuring highly recognisable new station buildings are the new Central Crossing station in Berlin completed by Gerkan, Marg and Partner in 2006, the new Guillemins station designed by Santiago Calatrava in Liège, Belgium that opened to worldwide acclaim in 2009 and the Gare de Oriente in Portugal’s capital Lisbon, also designed by Calatrava and already completed in 1998.

Several others are under construction or planned, as countries across Europe – in line with the stated goal of the European Union to develop a Trans-European high-speed rail network – continue to invest heavily in their high-speed rail infrastructure. Architecturally striking stations designed by world-renowned architects such as Sir Norman Foster and Zaha Hadid have been or are being planned in several major Italian cities, including Turin, Bologna, Florence, Rome and Naples, as part of the development of the country’s new north–south high-speed axis. In addition, many existing stations have seen substantial investments to accommodate new high-speed services. Two prominent and highly-publicised examples are Antwerp Central Station, which received a €1.6 billion makeover to accommodate the high-speed trains running on the Amsterdam-Brussels-Paris line, and London’s St. Pancras station, which was renovated and expanded at a cost of £800 million to accommodate the start of Eurostar high-speed service to Paris, Brussels and Lille from St. Pancras in 2008.

Intermodality, meanwhile, represents another key goal in European Union Transport Policy (and generally in any modern transport policy) and there are numerous projects across Europe aimed at turning stations into intermodal transportation hubs. Most of these interventions are part of larger metropolitan area transportation projects, however, and a closer look at a project’s individual compo-
Unrealized Projects. Large numbers of TSAD projects do not make it beyond the planning stage; countless projects have been abandoned, scaled down or keep being postponed. Take Germany’s prestigious ‘21’ projects, for example, which so significantly contributed to the euphoric ‘rail renaissance’ discourse that swept across Europe in the 1990s: most will never see the light of day. Frankfurt 21, described in more detail by Georg Speck (2012, this issue) is perhaps the most prominent example. Other ambitious TSADs have been trimmed down considerably. Plans for the ‘UFO’ train station redevelopment in Dortmund, designed to locate about 80,000 m² of mixed-use development incorporating office, retail, and housing in the vicinity of the station, first time in 2001. A second attempt, rebranded ‘3do’, finally fell apart in early 2007 when the new investor pulled out. So in the end, instead of joining a €500 million mixed-use public-private partnership mega-project (which had already secured €75 million in Federal and €55 million in state funds), the German Railway Company (DB (Deutsche Bahn AG) merely renovated the station for €23 million, with the Federal government contributing €13.3 million and the state €1.4. This is still a sizeable (public) investment, but a far cry from the original plans. Similarly, architect Will Alsop’s plans for Rotterdam Centraal were severely downscaled to a station-only project that bears almost no resemblance to the Dutch railway company’s ambitious initial plans. The Amsterdam Zuidas station development, meanwhile, is on hold due to a lack of interest from private parties. Likewise, many schemes in the UK proposed years ago still await their – now in many cases unlikely – realization. What follows from this, then, is that the still-powerful narrative of train stations’ renaissance presents a somewhat distorted account of today’s realities of

4. Urban Development Projects. This category refers to projects where the (re)development of station-adjacent property is the primary element and driving motivation of development activity. Such projects include public-sector-led rail land conversion projects as well as largely private-sector-driven and commercially-oriented real estate projects. Whereas the former are typically planned and realized with a longer-term purpose in mind, the latter tend to be more concerned with the short- to medium-term extraction of value from abandoned or underutilized land. In the era of the ‘entrepreneurial city’, demarcations between the two subcategories are not always clear cut, of course. Any profit-oriented property-led development projects routinely also claim to benefit a wide range of communities and interests, incorporating many of the same ‘public benefit’ promises typically associated with public-sector led regeneration efforts regarding various socioeconomic and environmental benefits and positive contributions to public space (Lehrer and Laidley, 2008; Fainstein, 2008). In many cases, the station itself is featured in the name given to the scheme – the project Gare+ in Angers or the Victoria Transport Interchange (VTI) 2 project in London are two prominent examples. Specifically positioned and branded as new ‘train station quarters’ or ‘districts’, these developments seek to reflect their proximity to the train station in their design and uses.
train station development. Tales of broken dreams are plenty – and numerous important train stations throughout Europe have seen little investment or improvements in decades. And, as Richard Wolff’s (2012) contribution on Zurich in this issue clearly demonstrates, the scheme which ultimately gets implemented has often been preceded by several failed attempts, with coalitions of promoters and opponents varying from decade to decade, and failure or success often attributable as much as to the merits or flaws of the schemes as to (un)favourable socio-political and economic circumstances.

Context Matters: A Look at Recent TSAD Projects

At first sight, one is compelled by the seeming similarities of TSADs across places, architecturally and otherwise. Yet there are still significant regional differences that warrant attention. For one, many Eastern and Central European countries have seen declining passenger numbers and only relatively little public investment in rail infrastructure over the past two decades (Givoni and Banister, 2008; Pucher and Buehler, 2005). Although this trend is partially reversing itself along certain high-profile axes targeted for the future expansion of EU high-speed rail, most train stations in Central and Eastern Europe are still far from experiencing a renaissance. Instead, many developments merely seek to capitalize on rail sites’ central locations – generic shopping malls and big box retail next to rail stations illustrates the nature of post-socialist cities’ property and consumption-driven restructuring (Tsenkova and Nedovic-Budic, 2006; Andrusz et al., 1996). One of the earliest examples of such a privately-driven urban development project is the WestEnd City Center complex adjacent to Budapest’s Western Railway station. When it opened in 1999, it was Central Europe’s biggest shopping mall. But other types of development have now emerged in the region. Tied to Poland’s plans to build a high-speed rail network linking the country’s major cities, Łódź is currently moving forward with an ambitious strategic mega-project which combines a complete overhaul of the city’s railway junction and the building of a new underground station with extensive urban redevelopment measures affecting about 90 ha of inner-city land. Based on a master plan by Rob Krier, the scheme involves a complete rethinking and remaking of the city’s centre, including the attraction of a variety of creative class-type uses in the area. In October 2011 the train station, Łódź Fabryczna, closed and the historic building is awaiting demolition. While the authorities brand Fabryczna station as an eyesore, opponents to the scheme have called it an “architectural gem”. Given the current economic outlook, the ultimate outcome of the scheme is uncertain. What makes this example note- and quote-worthy, however, is the explicit acknowledgement of the premier role of the railway company in making the scheme potentially viable in the first place:

The development of railway facilities in the very centre of the New Centre of Łódź project is planned in cooperation with [the Polish Railway Companies] … increasing its attractiveness for potential investors. Railway companies are very important partners of the New Centre of Łódź project; it is thanks to their investment in the underground railway infrastructure that the project can be developed without major spatial limitations in the area that used to be split in half by a railway track.”

Another interesting example is the aforementioned Europoint project underway in Brno, the Czech Republic’s second largest city. The scheme involves a complete redevelopment of Brno’s railway junction, a new above-ground station building serving as an intermodal hub for all types of local and regional transport as well as extensive urban redevelopment in the station’s vicinity. Just as with Łódź’s new station, this is part of a nationwide effort to improve the country’s rail infrastructure and enhance long-distance and international rail transport. And just like numerous other projects across Eastern
and Central Europe, both Łódź’s and Brno’s projects have been encouraged and financially supported by the European Union. The EU’s pro-active efforts to promote high-speed rail transport clearly represents one of the most important factors contributing to the increase in development activity at or near train stations in recent years.

Switzerland and Norway, meanwhile, illustrate that the proliferation of development activity at or near train stations is by no means confined to members of the European Union. Planners in Oslo recently announced a multi-billion plan to replace the city’s existing central station with a new mixed-use development that will expand the station to almost twice its current size. In Switzerland, railway companies have intensified their efforts to exploit the redevelopment opportunities of their centrally located properties and stimulate commercial development. Since 2003, seven of the country’s largest railway stations – Zurich, Berne, Basel, Lausanne, Geneva, Winterthur and Lucerne – have been redeveloped under the ‘RailCity’ initiative which turned them into modern retail and service destinations with shops, restaurants and other amenities (for details on Zurich see Wolff, 2012, this issue). Railway companies in other countries have launched similar initiatives, including in Italy, where rail operator Ferrovie dello Stato partnered with private investors to upgrade the country’s largest stations, which are now marketed as ‘Grandi Stazioni’. Property development and management have become mainstays of a large share of railway companies across Europe. Railway companies – typically through subsidiaries – have also become increasingly involved in the development of non-operational properties adjacent to train stations to generate additional revenues and profits. Portugal’s REFER is modernizing several railway stations under its co-called ‘Living Stations’ programme at the same time as several Czech railway stations are being revitalized by a public-private partnership consortium under a programme carrying the same name. Frequently partnering with local authorities, railways in Great Britain have also significantly stepped up their efforts to exploit the commercial potential of their properties. Nevertheless, despite steady growth in passenger numbers, many railways remain in a state of crisis, still facing a huge investment backlog that has built up over decades. Back across the Channel in France, meanwhile, regeneration efforts at established station locations are eclipsed by the enormous amount of activity still linked to the continued expansion of the TGV system. This included the construction of a plethora of new TGV stations outside city centres that are largely devoid of architectural merit.

Emerging Issues

When looking at the realities of TSAD across Europe, a complicated picture emerges. Different types of projects drive the so-called renaissance of train stations. Recognizing the existence of overlaps and in-betweens, as well as the non-existence of reliable comparable datasets, we have suggested a fourfold typology to make sense of the variations in TSAD. Yet this represents but a first step towards a more ambitious research agenda for future investigations. The following section summarizes key issues still in need of further clarification and exploration.

TSAD and Real Estate: Who and What Drives Developments?

Certainly the question of who and what drives current and changing patterns of development at or near railway stations is ongoing and worthy of further investigation. As demonstrated by the many examples throughout this special issue, TSAD developments are planned large-scale projects involving rail and real estate elements where many different ‘glocal’ interests come together. As Bruinsma et al. (2008, p. 2) aptly put it in the introduction to their edited volume:
The essence of these plans is that railway stations are not considered merely as nodes where people change from one vehicle to another, but also as placed where spatial concentrations of high value activity are recognized as having a positive impact on cities.

The process of value-creation is always contested, of course, and in many locations increasingly bound up with ‘right to the city’ debates over public(ly financed) infrastructures, the (re)privatization of public spaces and the future of post-industrial cities more generally (see for example Marcuse, 2009; Purcell, 2003; Harvey, 2003). The ongoing mass protests related to the Stuttgart 21 mega-project (see Novy and Peters, 2012, this issue) vividly illustrate this point.

Perhaps the best way to describe TSADs, then, is to see them as developments that are as much driven by – and indicative of – the spatial dynamics of an ‘existing neoliberalism’ which is ‘historically specific, unevenly developed, hybrid, [and has a] patterned tendency of market-disciplinary regulatory restructuring’ (Theodore and Brenner, 2002; Brenner et al., 2010, p. 330) as by well-meaning, normative policy tenets related to smart growth and transit-accessible development.

Terminating the Terminals and Covering the Tracks

Major railway terminals are increasingly being treated as divisive intrusions into the urban fabric, and the best way to minimize division and maximize land value often appears to be the conversion of terminals into through stations. Often, this means covering or moving tracks underground and building on top. There is, however, still very little reliable, let alone comparable, research about the precise economics of moving entire train stations underground. The German experience, documented in part via the cases of Frankfurt (Speck, 2012) and Stuttgart (Novy and Peters, 2012, this issue), demonstrates that local real estate dynamics alone will typically not be sufficient to support the excessive cost of physically moving all rail structures underground – at least not without significant city, regional, state and even national financial subsidies and steadfast political support. Such assistance was firmly in place in Stuttgart but less so in Frankfurt and Munich. Also, while complete covering of structures, along with extensive rezoning measures and air rights developments emerged as preferred ‘all-or-nothing’ solutions early on, more moderate ‘interim’ solutions are now often sought. Zurich (Wolff, 2012, this issue) and Amsterdam Zuidas are two pertinent examples. Antwerp, meanwhile, is a good example of a successful ‘partial’ terminal conversion where a beautiful historic structure was preserved above-ground. Voted by Newsweek ‘the world’s fourth greatest train station’ in 2009, Antwerp Central underwent a €1.6 billion conversion between 1998 and 2007 to accommodate new underground through tunnels for faster high-speed rail services between France, Belgium, the Netherlands and Germany.

From Area (Re)Development Mega-Projects to Strategic Urban Giga-Projects

There are now many multi-billion euro TSAD projects on record in which the redevelopment is centred within the very large-scale remaking of entire core sections of cities. This is not entirely surprising given that high-speed rail, often working in tandem with new local light rail systems, provides an entirely new form of transport ready to reshape existing urban-regional geographies. Over the course of the last two decades, several rail station redevelopment giga-projects have reshaped city cores across Europe. On the transportation side, the sum of the parts is now adding up: the completed combined redevelopment of King’s Cross and St. Pancras in London now brings the Eurostar train into the very heart of the British capital, while Lille and Paris have long done their
bit to receive the fast trains in their midst, making a daily commute between the cores of those three cities a real possibility for the privileged business person who can afford it. Berlin, meanwhile, embarked on a gigantic restructuring of its entire long-distance rail network after reunification, creating half a dozen new high-speed rail hubs across the metro area. Erected right in the midst of the Death Zone which once divided East and West, Berlin’s giant new Central Crossing Station now receives high-speed rail traffic from four different directions (Peters, 2010). The list goes on.

On the urban redevelopment side, however, the results are more uneven, more controversial, more mixed, and obviously also heavily influenced by the fate of individual local economies. London’s King’s Cross, for example, seems finally to be shedding its former red light district image in favour of a much more generic, sanitized, recently gentrified appearance, while also accommodating the long envisioned additional business and cultural activities. Berlin’s new Central Station, meanwhile, continues to sit a bit like a ‘glass palace in a desert’, with the surrounding brownfield sites still waiting development years after all design contests and master plans have been completed (Peters, 2009). Given Southern Europe’s recent economic problems, the future of ambitious giga-projects like Barcelona’s Sagrera station and park is also difficult to predict. In the end, upscaling one’s ambitions from mega- to giga-projects also means thinking in even longer time frames, typically spanning well over one generation from the first conceptualizations until build out.

‘Synergetic Adjacencies’ (Or: How to Know if a TSAD is a TOD or Really Just a TAD?)

In many cases, the attractiveness of a particular real estate redevelopment is due to synergetic adjacencies, i.e. the fact that train stations are often located in close proximity to other major industrial-age structures which also have great potential for redevelopment. The aforementioned station in Łódź, for example, stands adjacent to an old power plant which is to be repurposed for creative class-type uses. In Berlin, the new Central Station (Hauptbahnhof) is bordered by the city’s main river, an inner-city harbour (Humboldthafen) and a major canal, affording pleasant water views for all three major redevelopment sites around the station. Waterfront adjacency, the most common synergy near rail stations, is a relic of industrial times when convenient freight transfer from water to rail at harbour site locations was key to the effective functioning of the urban distribution system. Today, those rail/water relationships are more tenuous, and make the ‘correct’ categorization of rail station adjacent property development ever more problematic. Many developments within the immediate area of influence around a rail station (typically defined as a half mile walking radius) is often really more of a river- or harbour-front development than a train station area development, responding to a rather different, additional set of redevelopment dynamics (including potential scenic views, added prestige etc.). A prime example of an envisioned redevelopment mega-project in close proximity to a major train station with which it has little connection – and even less concern – is the so-called Mediaspree development in East Berlin. Spread over some 80 acres (32.4 ha) along both sides of the Spree, Mediaspree is located in immediate proximity to the city’s second largest railway station, the Ostbahnhof, yet its developments largely turn their backs towards the station, instead orienting themselves first and foremost towards the nearby banks of the river Spree (Scharenberg and Bader, 2009; Novy and Colomb, forthcoming). While the rail station certainly acts as an asset in terms of convenient connectivity and transport accessibility, it plays almost no role in the design and development of the project.
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Understanding ‘Failure’ or: Why Some Projects are Realized and Others are Not

Our earlier point about the importance of understanding unrealized projects as well as realized ones also bears repeating. The ultimate key to successful implementation is sustained political and financial support along with successful collaboration between the key public and private partners, i.e. the railway agency, the private developer and local, state, and, if applicable, national government. ‘Collaboration’ of course sometimes simply means local and state officials coughing up enough financial support and/or subsidies in order to keep railway companies and developers interested in the project. A kinder way of putting it would be to say that the ‘public entrepreneurship’ Allshuler and Luberoff (2003) traced in their historic study of transport infrastructure mega-projects in the US is equally alive and well in today’s Europe.

The Dark Side of the Rail Renaissance:
The Decline of the Lesser Stations

Our initial stocktaking focused on mega-projects with an investment of at least €100 million, so our view was still firmly biased towards the big scale. Yet there is an argument to be made that one key aspect of train station area development today is the increasing neglect and even abandonment of smaller nodes in the network at the expense of the larger, more profitable ones. By 2009, the German Railway Company DB was aiming to sell 2,400 stations across the country, seeking to keep only a core portfolio of 600, with lesser stops already being degraded into non-places without proper roofs or electronic information systems and ‘boasting’ simple, cheap, standardized concrete platform designs. Compared with the intricately designed, charming local stations of yesteryear, these loveless structures may indeed be correctly identified as a ‘dramatic change in our cultural landscape’ (Quadejacob, 2009, p. 15). More importantly, many sustainable transport experts not only mourn the loss of these small stations for nostalgic reasons but point out that the so-called rail renaissance is in fact a highly selective affair, privileging a comparatively small group of high-profile stations in the larger cities to boost service along the most profitable high-speed routes while thinning out or cutting service to many smaller, more remote places and areas. As Heiner Monheim (2009), keynote speaker for the conference which inspired this special issue, pointed out:

The decline always begins with the reduction of personnel because of a policy of progressive rationalization and saving. The ticket and luggage counters close. Because of this, all private enterprise dies. Newsstands and restaurants disappear. What remains is a sad cast concrete cube from the 1960s or a red I-point cube from the 1990s plus an automatic ticket machine including a ticket canceller. Without personnel, vandalism quickly takes hold … boarded up waiting rooms, vandalized façades, damaged roofs, platforms that are out of repair and pedestrian platform underpasses that reek of alcohol. Examples like this are primarily found in rural areas and small cities [but] … even a portion of the train stations in larger cities are confronted with a creeping decline, which affects not only their transportation function, but also their urban development function. This decline began … with the removal of the high-quality long distance trains (the IC and the IR) from the higher and middle urban centres. This was followed by an attempt by the DB to optimize their turnover by opening their train stations to hawkers and cheap junk. A hotchpotch of simple kiosks dominated the picture, which in many ways marked a sad contrast to the spaciousness of the old architecture. The trendy cinemas (AKI and WOKI) which were integrated into the train stations in the larger cities mutated quite regularly into pornographic cinemas and provided an open door for the entry of the red light district into the train station environment. Every architectural and cultural continuity was lost through the interior design, as cheap plastic façades and a minimum standard were defined in all of Germany.

So both train station area development and decline are still happening simultaneously, and ultimately need to be understood as
two sides of the same coin: across Europe, railway companies’ neoliberal rationalization processes lead to upgrading in central, high-profile locations and to downgrading and even neglect in others.

Concluding Remarks

Two years ago, we set out to develop an updated, clear and concise typology of train station area development. Today, while we have certainly gained a much more sophisticated understanding of the factors involved, we must concede that a fully comprehensive account of the highly varied processes defies generalized categorization and that our ongoing research leaves us with many new questions for which answers remain elusive. For instance, we found that in many of the large, integrated projects, our aforementioned analytical distinction between a ‘sustainable transport and land use’ and an ‘urban revalorization/restructuring’ perspective becomes increasingly blurred, especially whenever railway companies themselves get into the business of land development. Also, note that the fourfold typology of TSADs we developed in this article is primarily a functional one that still needs to be complemented with institutional typologies (different ownership and management models) and with much more detailed urban design typologies for the surrounding neighbourhoods.

Our original focus was on the role of rail stations in the ‘remaking of inner cities’ in Europe. Yet the more we broadened our knowledge of rail station mega-projects across the continent, the more obvious it became that a truly all-encompassing view of TSADs needed to move beyond historic ‘inner-cities’. In fact, notions of ‘urban cores’ are being redefined by the very phenomenon we set out to study. That is: new high-speed rail connections both challenge and change previously held notions of ‘centrality’ across Europe, constantly adding important new ‘place-nodes’ along a wide spectrum of neighbourhood settings that include instant ‘airport cities’ like BBI near Berlin, convention centres like Cologne Deutz, small cities like Montabaur and Limburg as well as largely ex-urban locations like Ebbsfleet and Ashford along the Thames Gateway. Hence, our research journey continues.

NOTES

1. For the purposes of this article, the terms ‘train station’ and ‘railway station’ are used interchangeably to connote a place where heavy rail vehicles, i.e. trains, unload or load passengers, and possibly goods as well.

2. Note that the North American literature also discusses the term ‘transit joint development’ or ‘TJD’: ‘While the distinction between the two is not always clear, in general their differences lie with scale. TOD generally encompasses multiple city blocks … TJD, on the other hand, tends to be project-specific, often occurring within a city block and tied to a specific real estate development. Whereas TOD is often spearheaded and choreographed by a public agency, TJD usually occurs through a partnership of public and private interests working in tandem to achieve “win-win” outcomes, whether in the form of air rights leasing of publicly owned space, station connection fees, or the joint sharing of capital-construction costs’ (TRB, 2002, p. 2).

3. Note, in particular, the threefold distinction Bertolini et al. (2012) make for station area projects as having been frames under either ‘property capitalization’, ‘urban-mega-projects’ or ‘transit-oriented development’ frameworks and the fourfold distinction Loukaitou-Sideris et al. (2012) make of the proliferation of high-speed rail systems (including redeveloped stations) being accompanied by 1. transportation goals; 2. environmental goals; 3. economic development goals; and 4. urban development/spatial restructuring goals.


5. Unfortunately, even basic data of precise cost and project size often proved non-existent or unreliable, and the status of individual projects remained unclear or confusing, so that final cross confirmation of information often turned out to be impossible. Note that our survey method was
also definitely skewed towards documenting site-related redevelopment costs and hence did not account for the related large-scale investments into new high-speed corridors which obviously dominate rail-related investments in countries like Spain. Information on costs was frequently only available for the corridor as a whole, making it impossible to ‘guesstimate’ transport-infrastructure related costs for the station area alone. Language barriers also posed a challenge. Our research team members could confidently carry out research and searches in English, French, German, Dutch, and, to a lesser extent, Spanish and Italian. Most major redevelopment undertakings exceeding €100 million will receive at least a brief mention on some real estate-oriented English language wire service, but the level of detail and accuracy we were able to obtain for projects where we were unable to read online editions of local newspapers was obviously much inferior compared to our searches on German or British cases, for example. There is also a possible documentation bias in the simple fact that projects built in the 1990s or before are much less likely to be as thoroughly documented on the internet than those in the last dozen years.

6. This quote was retranslated from the German, lifted from an interview Foster gave to the Sächsische Zeitung. The respective excerpt is posted (in German) at http://www.das-neue-dresden.de/hauptbahnhof.html. Accessed 14 January 2012.


10. This is often encouraged and sometimes even required by regulatory and legal institutions for political reasons. In Germany the so-called Bahntasche (Railway reform) of 1999 effectively turned the country’s state-owned railway companies into a privately organized company. It involved the transfer of around 3,000 assets to a new subsidiary that had been established to develop and/or sell the properties as part of a debt relief scheme.

REFERENCES


Peters, D. (2009) The renaissance of inner-city railway station areas as a key element in
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