

PAPER • OPEN ACCESS

## Urban FM and POPS – implications for UN’s SDG 11 Sustainable Cities and Communities

To cite this article: T Holsen and K Boge 2023 *IOP Conf. Ser.: Earth Environ. Sci.* **1176** 012040

View the [article online](#) for updates and enhancements.

You may also like

- [Charged nano-domes and bubbles in epitaxial graphene](#)  
A Ben Gouider Trabelsi, F V Kusmartsev, B J Robinson et al.
- [A Bayesian study of uncertainty in ultrasonic flow meters under non-ideal flow conditions](#)  
Z Belligoli, R P Dwight, G J P Kok et al.
- [Two-proton radioactivity of ground and excited states within a unified fission model](#)  
Fengzhu Xing, , Jianpo Cui et al.



The banner features a dark blue background on the left with white and orange text, and a photograph of a woman at a podium on the right. The woman is smiling and looking towards the camera. The background of the photo is a bright, modern interior with large windows.

 The Electrochemical Society  
Advancing solid state & electrochemical science & technology

243rd Meeting with SOFC-XVIII

Boston, MA • May 28 – June 2, 2023

**Accelerate scientific discovery!**

[Learn More & Register](#)

# Urban FM and POPS – implications for UN’s SDG 11 Sustainable Cities and Communities

T Holsen<sup>1</sup> and K Boge<sup>1</sup>

<sup>1</sup>Department of Property and Law, Norwegian University of Life Sciences (NMBU), Norway

knut.boge@nmbu.no

**Abstract.** Urban FM (UFM) is usually understood as micro level Facility Management (FM) methods and tools applied on macro level challenges in communities and neighbourhoods in urban areas, among others to improve the citizens’ wellbeing. UFM is also often associated with smart cities, technology, and UN’s SDGs. However, many studies of UFM overlook property rights and other institutional matters that establish many of the ground rules. Property rights are frequently understood as a bundle of rights, i.e., the right of use (USUS), the right of enjoyment (USUS FRUCTUS), and the right of disposition (ABUSUS). UFM usually takes place across property boundaries, on properties with disparate bundles of rights, including restrictions through public zoning. Many urban transformation projects have established privately owned public spaces (POPS), leading to a restructured division of responsibilities between public authorities and private owners in the management, design, access control, and use of urban public spaces. This paper investigates whether and under which conditions UFM and management of POPS can contribute to realisation of UN’s SDG 11 Sustainable Cities and Communities, hereunder to facilitate development of inclusive, safe, robust, and sustainable cities and local communities.

## 1. Introduction

Currently, approximately half of the world’s population live in cities [1]. The last decades of urban development have transformed our cities. Generally, through compact city development, but more explicitly through physical transformation and new uses of former institutional, industrial and harbour areas. Urban transformation is increasingly a result of private real estate development projects based on real property rights, often referred to as neoliberalisation or neoliberal urban planning [2]. Neoliberal political practice involves deregulation [3], a restructuring of the relationship between owners of private capital and the state [4]. Critical voices point to how such changes affects people’s daily lives, creating what is frequently referred to as POPS – privately owned public spaces [5].

POPS can be defined as publicly accessible urban spaces which are owned and managed by private entities [6]. These urban spaces are a result of neoliberal urban transformation. Public authorities no longer take sole responsibility for solving challenges relating to urban decay and transformation. Solutions are sought in a network governance structure of interdependence and continuing interaction between public authorities, private market actors and civil society [7], and through the transfer of rights and duties from public bodies to the private sector [8].

Property rights are frequently understood as a bundle of rights, i.e., the right of use (USUS), the right of enjoyment (USUS FRUCTUS), and the right of disposition (ABUSUS). In a privatized public space,



the right to decide who should have access to use a place and how the use should contribute to income for the owner will be important elements of the owner's interests. Thus, private management of public space, including increased emphasis on commercial considerations, affects democratic rights in the urban environment. The most important democratic rights are the right to freedoms of association, assembly, movement, and expression [9].

The ideas about Facility Management (FM) as activity and profession came to Europe from USA in the 1980s [10]. The FM community spent years discussing what is FM. In 2003 the US International Facility Management Association (IFMA) defined FM as '[a] profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating, people, places, processes and technology' [11]. Barret and Baldry [12] defined FM as '[a]n integrated approach to maintaining, improving and adapting the buildings of an organisation in order to create an environment that strongly supports the primary objectives of that organisation'. In 2006, the European standard EN15221-1 defined FM as '[i]ntegration of processes within an organization to maintain and develop the agreed services which support and improve the effectiveness of its primary activities' [13]. More currently, Atkin and Brooks [14] defined FM as 'creating an environment that is conducive to carrying out the organisation's primary operations, taking an integrated view of the service infrastructure, and using this to deliver customer satisfaction and best value through support for and enhancement of the core business'. In 2017, after years of negotiations between experts representing a large number of countries, it was finally established a global ISO standard and definition of FM as an 'organizational function which integrates people, place and process within the built environment with the purpose of improving the quality of life of people and the productivity of the core business' [15]. It is important to note that this definition juxtaposes 'quality of life for people' and 'productivity of the core business' as the purpose of FM. The common denominator in these definitions, except for IFMA's 2003 definition was the emphasis on the individual organization. Thus, a micro-level perspective on FM has been the dominant view.

This paper is structured as follows. Firstly, some aspects concerning UFM, and UN SDG are discussed. Thereafter the key terms and concepts regarding property rights and the public and private in POPS is discussed. An operational model for analysing property rights regarding POPS is defined. Based on this, the third section is devoted to a discussion of the relationship between POPS and UFM, and how this relationship affects UN SDG, in particular SDG 11 on sustainable cities and communities. In the concluding section, the relational understanding of POPS and UFM developed in section three, is used to discuss, and operationalise a hypothesis about how property barriers of POPS could be overcome through an enhanced UFM model to facilitate development of inclusive, safe, robust, and sustainable cities and local communities.

## **2. UFM, the triple bottom line, and UN's SDGs**

Even during the tribal wars concerning how to define FM, there were those who questioned whether insights gained through provision of FM to individual organizations could provide more impact across organizational boundaries. Based on analyses of the Best Value Program established by the British government in the late 1990s to improve provision of public services in England and Wales, Roberts [16] introduced the concept 'Urban FM' (UFM), namely that provision of community services could be 'wholly externalised to professional service providers, responsible for investment and management of the public infrastructure and its associated services'. Thus, the first seeds to the idea that a macro-level perspective on FM could be fruitful had been sowed. These ideas were furthered by Alexander and Brown [17], who introduced the concept 'communities-based facilities management' (CbFM). However, they recognised that addressing social and community aspects was a 'difficult mindset to adopt within facilities management'. They were well aware that most facility managers and FM organizations were embedded in the micro-level perspective with emphasis on serving the needs of a particular organization.

In 1994 Elkington [18] introduced the triple bottom line, (TBL) that very soon also became known as the so-called 3Ps, namely people, planet, and profit. Thus, the ISO standard's juxtaposition of people

(social sustainability) and profit (economic sustainability) as purpose has been expanded with the planet (environmental sustainability). The TBL was an accounting framework to measure and manage organization's economic, environmental, and social performance. However, there are some challenges due to a lack of standard methods for calculating and measuring the three TBL dimensions [19]. Organizations that use the TBL framework to measure and manage their economic, environmental, and social performance have substantial degrees of freedom. These degrees of freedom may represent some challenges and may also complicate comparison of different organizations' performance. Measuring economic performance can be relatively straight forward but measuring environmental and particularly social performance is not necessarily that straight forward. It is difficult enough on a micro-level and it is particularly challenging to measure on a macro-level where citizens with multifaceted experiences (gender, age, ethnicity, etc.) can have quite different perceptions of what quality of life entails and what should be prioritized, both for themselves and for the environment.

Hoffman et al. [20] and Larsen et al. [21] suggested that combining ideas from FM and urban planning could facilitate better neighbourhoods, and thereby support the creative economy. Hoffman et al. argued for 'dynamic integration of facilities and facilitation ... to bring about creative environments', while Larsen et al. argued for considering the urban context as one of the facilities. Tammo and Nelson [22] concluded that community facilities were of great importance for communities, and FM could provide valuable contributions to development of communities, because FM could facilitate and manage the relationships between multiple stakeholders. Mitchell [23] and Boyle and Mitchell [24] concluded that UFM could contribute to sustainable cities, due to 'innovative integration of private and public sector services in order to benefit society at the urban precinct scale' and because UFM could 'facilitate systemic solutions to issues of implementation'. Furthermore, it is claimed that FM can contribute to smart urban growth, by gathering and analysing data from exiting housing [25], and that by balancing economic, environmental, and social considerations UFM can contribute to wellbeing [26]. Bröchner et al. [27] emphasised that environmental sustainability could not be separated from economic and social sustainability and questioned whether knowledge and skills in FM established when serving individual organizations were transferable to a city scale but did not mention property relations. However, to succeed in transformed urban areas, UFM organizations must take all the sustainability aspects into consideration, and Larato et al. [28] has questioned whether it was possible to implement UFM in a city scale in areas with numerous owners. In the same way that citizens have different experiences and priorities, owners of real property also have varying motives and pursue different priorities for their individual properties. Thus, the challenges of coordination and interaction become significantly more complex when moving from micro-level FM to macro-level UFM.

With this caution about complexity in mind, involving FM in urban planning can contribute to healthier and more inclusive societies both for citizens and office workers, through early involvement in the urban design process and in maintenance of areas [29]. UFM and urban planning, thus, might be important for successful implementation of Smart City concepts to achieve the United Nations' Sustainable Development Goals (UN SDG), because facility managers can serve as intermediators 'between the strategic city needs and local needs of a district' and 'design the creative methods for efficient multi-participation' [30]. UFM can also create 'links between FM, Smart Cities and City planning' [31]. In 2015, all members of the United Nations approved the *2030 Agenda for Sustainable Development* and the 17 SDGs. UN's SDG 11 *Sustainable Cities and Communities* aims for cities and human settlements that are inclusive, safe, resilient, and sustainable. In 2050, UN expects that approximately 70 per cent of the world's population will live in cities [32]. Thus, there are very good reasons to address UN's SDG 11 Sustainable Cities and Communities. However, there are some challenges due to different scales because UFM usually emphasises communities and neighbourhoods while Smart City concepts emphasises the city [33].

According to Salaj and Lindkvist [34], UFM 'is an underused approach that can make the linkages of business, community needs and sustainable goals through the coordination of key players and data sources', and thereby contribute to UN SDG 11 Sustainable Cities and Communities. Some of the reasons for underuse of UFM are that cities are 'a complex set of organizations and stakeholders who

are the decision makers' and these organizations and stakeholders are 'often obscure and the distinction of who the stakeholders are is less obvious' [35]. In a literature review, Dasandara et al. [36] found that some of the most important barriers against UFM were lack of information and knowledge, and conflicting stakeholder requirements. To make facility managers more capable of handling UFM Xue et al. [37] suggested strengthening the European FM standard EN-15221 (2011) Part 4 *Taxonomy, Classification and Structures in Facility Management* with extra elements, among others concerning urban planning, social infrastructure, and demographic models, but did not mention need for improved knowledge about property and property relations.

Thus, there are at least three elephants in the room. The first elephant is that UFM with its macro perspective on FM is difficult to implement, because most FM organizations have a micro level perspective. The second and so far, least addressed elephant is that most studies of FM and UFM largely have overlooked property rights and property relations. According to UN's SDG 11, target 1, to ensure social sustainability there is a need to ensure access for all to basic services. Such services are increasingly found in POPS, and may, based on commercial and other considerations, be closed to vulnerable individuals and groups in society. The recognition of POPS and the challenges such spaces entail for social sustainability is thus important for achieving the UN's SDG 11. To facilitate sustainable cities and communities, hereunder development of inclusive, safe, resilient, and sustainable, cities and human settlements, UFM of POPS based on clarified and defined property rights and property relations is of cardinal importance. Property rights and relations are important sources for divergent stakeholder interests. These are issues that are dealt with below. The third elephant is that POPS may simplify implementation of UFM, but POPS may also complicate implementation of UFM, among others because it is relatively straight forward to measure economic sustainability, but it is less straight forward to measure environmental and particularly social sustainability.

### 3. Property rights to and in POPS

#### 3.1. Property rights

Real property could be understood in two different ways – as artifacts or as relations [38]. In a common, popular language property frequently is understood as an artifact, also referred to as a resource. Property economics comes close to an understanding of real property as a thing when distinguishing between property and possession. Property concerns relational conditions, including the possibility of encumbrance and collateralization, etc. Possession concerns the right to physical use, including also changing the form and substance of the thing [39].

In an analytical legal context, however, property more commonly is understood as relations between persons relating to resources. What is owned is a right (or a claim) to use a resource [40]. Such rights are constituted through the duties of other persons to accept the claim of the rights holder [41]. Rights in real property (rights in rem) are institutional arrangements for managing and controlling resources and might be thought of as 'enforceable claims to the benefits of resources' [42]. De jure real property rights are usually understood as several identifiable and separable rights (in plural), described, and protected through legislation, frequently referred to as 'bundle of sticks' or 'bundle of rights'. What is owned is not the resource itself, but a bundle of rights relating to the use of a resource [43].

Bundle of rights in rem comprise of several independent relational rights and duties, which can be split in disparate elements or attributes [44]. In general ownership of a resource consists of three elements: the right of use (USUS), the right of enjoyment, including the right to the income (USUS FRUCTUS), and the right of disposition, including the right to the capital (ABUSUS) [45]. These rights might be limited, in various ways through legal arrangements or voluntary agreements. Property rights, then, can be described as a dynamic quantity.

However, it is not always the case that the proprietor and possessor of a resource are one and the same person. It is not always necessary for the possessor to have legal property rights to be able to use a resource. What distinguishes a property-based system from mere possession is the possibility of safe accumulation of capital through legally recognized rights to, completely or partially, dispose of the right

to a resource. In a public space, this is a crucial distinction. A general right to walk in and use a public space is not the same as a right to economic benefit from this use. De facto property rights are understood as the ability to use resources, independent of de jure property rights [46].

### 3.2. *Public and private spaces*

'Public space' is often understood as the opposite of 'private space'. Hence, the term 'public' cannot be understood independently of the term 'private' [47]. The relationship might be understood as a dichotomy – either the space is public, or it is private [48]. Alternatively, one could understand fully private and fully shared ownership as extremes on a scale [49]. In the latter perspective, fully public and private are special cases of collective ownership, also called club goods. Urban public spaces are such club goods, more or less accessible, more or less public.

The public-private axis can be analysed through two analytically distinctly dissimilar conditions: the degree of visibility and the degree of individualization. Furthermore, public space can be understood through contrasting perspectives [50], as the relationship between state and market, space for political discourse, space for socialization and self-realization and as the relationship between the public and family. Private management of public space is often understood as 'privatization', i.e., as matter of the relationship between state and market. Discussions within this strand tend to be oriented towards whether specific tasks should be a public matter or left to the market.

In a democratic context, however, the discourse on public space cannot be reduced to a matter of public control. Hence, the second understanding of space for political discourse, often referred to as the 'public sphere', i.e., the opportunity for the public to actively participate in open, collective, political discourses. A third understanding relates to socialization and self-realization, the everyday life as it is lived and expressed outside the home and family. Here, 'public life' is understood as visible, heterogeneous coexistence between people, quite clearly linked to public space as a physical structure and conventions that define acceptable behaviour. The fourth understanding is often linked to studies of gender or class. Here, both state and market are understood as the visible public space. The family and the private home are to be understood as the private sphere.

### 3.3. *Privately owned public spaces – POPS*

POPS – privately owned public spaces – are public spaces owned by private entities. POPS are thus public spaces discussed and analysed according to the second, third and fourth framework of understanding above, which are privatized according to the first understanding. POPS can be found both outdoors and indoors. Shopping centres are mere one example. They can be established both as a collection of shops, restaurants, and other types of services around an open, outdoor square and as an introverted building where the shared areas also are indoors. But in a neoclassical economy, where various types of public goods are privatized, railway and bus stations, streets, parks, squares, and larger urban areas like waterfront developments, also could be privately owned. If privately owned, they are POPS. So are cafes, shops, cinemas, and amusement parks. They are examples of public goods where the private owner is dependent on giving access to the public to capitalize on the design and use.

It is important, then, to note that the concept 'public space' does not exclude the participation of private actors in creating activity or the activity to taking place on privately owned land. For example, both market-based public spaces such as shopping developments [51] and mixed-use waterfront transformations [52] and 'third places' [53] as places of socialization, are in a neoliberal context as likely to be privately owned and managed as by public authorities. Thus, it is probably just as correct to talk about market-based solutions as about privatization. Hence, POPS are central to the understanding of UFM and the conditions under which such a management strategy might succeed.

The criticism against neoliberal market-based solutions is in many ways a criticism of soft control mechanisms, referred to as 'pacification by cappuccino' [54]. Arrangements are made for well-off people, which displaces original users/residents and give new groups de facto ownership [55]. Whether this is perceived as positive or negative depends on the point of view. Overall, the development has resulted in increased governance through the property regime and division of rights, rather than through

traditional public regulations. Investments in real property must be secured. Some social groups and individuals, conducting transgressive actions, are viewed as ‘social pollution’ [56], also named ‘dirt’ and ‘matter out of place’ [57], negative externalities that affect the value of the investments. Negative externalities are internalized and marginalised, and risk is reduced, through interventions based on property rights. This development is criticized as a privatization of public space [58]. However, the development is more complex. Roles, rights, and responsibilities are redistributed to various actors other than the public authorities themselves [59], where the public authorities ‘increasingly play a facilitative, rather than managerial, role in urban regeneration’ [60].

The uses of public space can be hampered, even when in principle and practically speaking being available to everyone. Freedom of movement might exist without freedom of speech and assembly. Democracy implies the ability to articulate interests, opinions, and experiences, make claims on public resources, being able to decide what (not) to do and scrutinise public (in)action [61]. There are ample examples of restrictions being introduced on the right to promote political or religious opinions in POPS [62]. Individuals or groups are restrained and inhibited in their use. Adolescents experience being asked to leave shopping centres. Machines emitting a high-frequency, bothersome whine (mosquito-like sound), only perceivable by those under 25, are installed in numerous places [63]. Homeless persons, alcoholics, drug addicts, beggars and other marginalized groups are frequently asked to leave POPS by representatives from the private security companies controlling the access to and the use of the amenities and services, even when general rules for behaviour in POPS are not broken [64]. Thus, their restricted possibilities for using POPS are highlighted as a challenge to democracy [65].

However, public space in general has always been challenged by conflicting interests, ‘matter out of place’, ‘strangers’ [66] whose behaviour or actions transgress majority interests, creating disorder, as well as attempts to exclude the ‘social pollution’. There is no zero point where public space has been fully open and inclusive for everyone. What for some is experienced as a clinically sterile public space, cleansed of ‘dirt’ through neoliberal practices, may appear to others as more inclusive than before (i.e., for people of a different class, religious belief, or sexual orientation) [67]. Furthermore, it can be argued that POPS such as shopping centres and waterfront developments, criticized for ‘pacification by cappuccino’, privatisation, and banishment, just as easily could be understood in a context of opening previously closed parts of the city to more people [68]. Before they became POPS, the general public had no access at all.

The allocation of rights in the public sphere, regardless of ownership status, is governed partly through moral judgements [69] and partly through economic assessments [70], nevertheless creating clubs in the public space where some gain membership, others do not. Some are included, others are excluded. Exclusion is often directed at behaviour or concrete actions, even when in real terms they are directed towards specific individuals or groups [71]. It is easier to gain moral acceptance and act legally correctly by regulating activity, than by preventing specific groups from accessing the club rooms. You can, as an example, ban overnight sleeping in a park or declare that begging is only allowed when the activity is registered with the police in advance, even when a specific group of people are perceived as the problem.

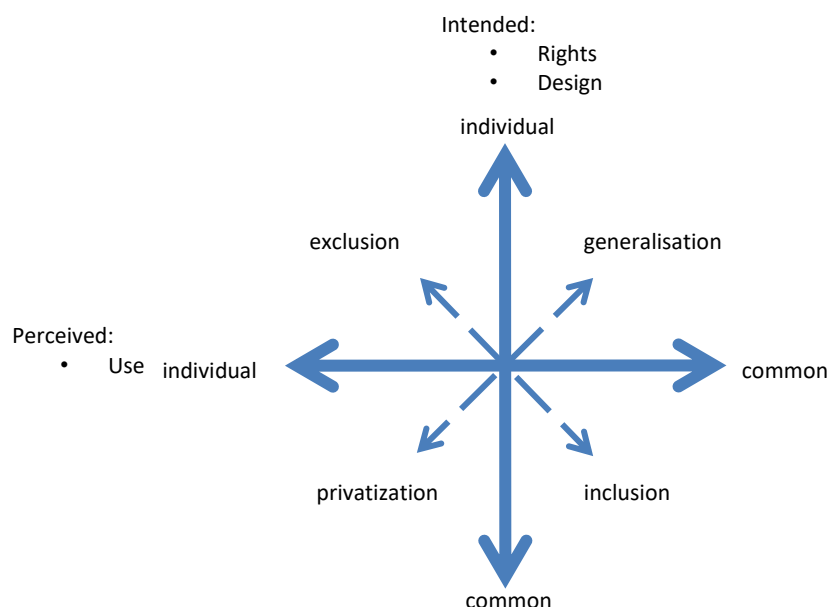
Public space must be perceived as safe to fulfil its role in the urban fabric. When attempts at morally based (re)establishment of order is recognized as insufficient, physical control measures might be considered as an alternative for maintaining club goods. Control measures are often referred to as either hard (active) or soft (passive) [72]. Hard measures are barriers (fences, access control, etc.), surveillance (cameras, guards, etc.) and regulation (management systems, rules of use and regulatory measures, including bans on types of activities) aimed at excluding the undesirable [73]. Soft control mechanisms are, in contrast, the staging of desired outcomes – events, designing and furnishing, selection of shops, services, and activities, etc. encouraging desired use of public spaces.

### *3.4. A model of inclusion and exclusion in public space*

In a neoclassical economic sense, public spaces can be defined as collective goods [74], also called public goods [75]. A distinction must be made between the use and management of public goods.

When the use of a resource (a good) does not reduce the simultaneous use of others, the resource can be said to be for free use. But if the use prevents others from using the resource at the same time, you will have a situation called rivalry. Most often, the use of resources will be of a competitive nature. See also figure 1. Urban public spaces are characterized by the fact that you by large can use them without preventing other persons from simultaneous use. The degree of rivalry depends on the type of activity and tolerance level. People may have varying degrees of tolerance for other peoples' presence and actions in public space. On the other hand, public spaces can be exclusively or collectively managed (regardless of who uses them). As for the use, one will most often find oneself between the extremes, i.e., more or less exclusive resource management. While the traditional urban streets, squares, and parks largely have been the responsibility of public authorities, POPS are managed by the private owner.

Non-rival used and jointly managed resources are termed public goods [76]. Such goods are in danger of being over-consumed as a result of free-riders and of a general reluctance to pay the cost for using them. There is usually no market for trading public goods [77]. Thus, the demand for the good might lead to the use becoming rivalrous. Then it will be necessary to protect the resource against over-consumption. There are two solutions, either by regulating the use or by regulating the number of users. Systems aimed at regulating use are often called local public goods [78]. Traditionally, urban public space – streets, squares, and parks – are local public goods. Use can be regulated by design (the driveway separated from the pavements, use of fences, signs, furniture, etc.). Such regulation is perceived as institutionally unstable systems [79], particularly when legal rights are difficult to define or enforce. Alternatively, the number of users can be reduced through the assignment of individual use rights, thereby preventing non-assignees from using the resource [80], thereby creating what is termed club goods [81].



**Figure 1.** Relations between the intended and the perceived in POPS.

Club goods are ubiquitous in the urban environment. Traditionally, this has been accepted in cinemas, theatres, operas, etc. where buying an entrance ticket is compulsory, and at bars, restaurants, cafés, etc. where it is expected that you pay for food or drinks. The challenges arise when traditionally open-access public spaces are privatized and included as elements in the owner's commercial concept. Club goods come with administrative and managerial dilemmas. Optimal club size must be defined, capitalizing on



the use of the resource without leading to overconsumption. Furthermore, if club goods also lead to rivalry and overconsumption, a further division and allocation of more exclusive rights could take place. In the end, you then end up in a situation with private goods. However, alternative policies and managerial systems – institutions for collective action – have been promoted [82].

The use of public spaces is affected by the intentions with and perceptions of rights and design [83]. Both parts must be assessed and understood both as an individual and as a collective space of opportunity. Both rights and design can therefore, as expressions of intentions, be considered as variables which individually and collectively affect the degree of exclusivity in resource management. The use of urban public spaces affects the degree of rivalry in resource management. Together, this de facto governs property rights and through this also access to the urban public spaces - it governs how the actors 'own' the space. De facto property rights are exercised in various ways, including for POPS. Hence, POPS must be assessed concretely and comprehensively, both based on the intentions and design laid down by the de jure owner and based on the interpretation that users of these places make through use. A discussion about conditions for neoliberal city life is therefore closely linked to a discussion about access to urban spaces. The degree of public access is determined by access: who has rights to access, how the access is physically designed, and who controls the access of others through their own use [84]. See figure 1.

#### **4. Discussion and conclusions**

This paper about UFM, POPS and the implications for UN's SDG 11 Sustainable Cities and Communities has shown there are at least three elephants in the room. The first elephant is that UFM with its macro perspective on FM is difficult to implement, because most FM organizations have a micro level perspective. The second and so far, least addressed elephant is that most studies of FM and UFM largely have overlooked property rights and property relations. To facilitate sustainable cities and communities, hereunder development of inclusive, safe, resilient, and sustainable, cities and human settlements, UFM of POPS based on clarified and defined property rights and property relations is of cardinal importance. However, property rights and relations may vary between countries, and can also be important sources for divergent stakeholder interests and information and collective action problems. Institutional and cultural factors, the dos and don'ts of human action, differ between countries and affect expectations of behaviour [85]. The third elephant is that POPS may simplify implementation of UFM, but POPS may also complicate implementation of UFM.

FM at a micro level when property rights are undivided, and the rights holder is clearly defined is relatively straight forward. But even at this level, property rights can be challenging, among others due to substantial national variations. This applies, for example, when there is more than one owner of a facility, whether this is tenancy in common or there are different owners of physically identifiable units within a building that are operated uniformly, as e.g., is in condominium property. In both cases, the rights structure can affect FM. This might be particularly challenging if the rights structure and decision rules, and how this affects choices about investments, operation, and management, are not clearly defined in an organizational agreement, regardless of whether this agreement is legally defined, defined as a standard, through bylaws or based on a voluntary agreement. There is a great risk that unclear property rights cause a lack of integration of people, place, and process within the built environment, thus preventing the purpose of improving the quality of life of people and the productivity of the core business.

Such challenges scale up when going from a micro level FM to a macro level UFM. The number of rights owners is increasing. The number of physical facilities for which there are owners is also increasing. The same applies to the complexity of the rights structure. Various types of covenants and other types of partial rights in real estate are not uncommon in urban settings. Add to the situation that this increased complexity also increases the likelihood that the various owners and rights holders have different interests they wish to pursue, and that their assessments of how UFM can contribute to them achieving these goals will also vary.

In addition to facilities owned by legal entities – individually or jointly – the urban fabric also consists of streets, squares, parks, etc. These are completely necessary elements in the urban environment and are also of great importance for achieving UN's SDG 11 Sustainable Cities and Communities. However, streets, squares, parks and other public spaces have two distinct functions. On one hand, they are constitutive of public urban communities, and on the other hand, they are also necessary structures that facilitate the owners' access to their properties. Without such public spaces, where everyone has equal access, the individual rights holders of real estate would have had to secure access through an unimaginably complex structure of voluntary agreements. Hence, public space has most commonly been managed by public authorities, on behalf of the public community. In line with the general trend of neoliberalisation, this equilibrium has been changed. The political practice of deregulation, the restructuring of the relationship between owners of private capital, including real property, and public authorities as managers of the public space, which affects people's daily lives. POPS – privately owned public spaces – are an important part of this.

This paper's starting point was that UFM largely has overlooked the importance of property rights and property relations. On the surface, it might appear that POPS simplifies the scope of possibilities for UFM. Private, commercial owners of such facilities can upscale FM and extend this organizational mindset to larger units. In this sense, larger urban transformation areas, where public authorities, in line with neoliberal division of responsibilities, can avoid taking responsibility for and the costs of operating and managing the public spaces, is made a part of private owners' commercial strategies. The rules of the game are affected and thus also the glue of the urban fabric that everyone, in line with UN SDG 11, should have an equal right to access and an equal right to use to promote own goals regarding inclusive and sustainable urbanisation, including increasing capacity for participatory, integrated, and sustainable human settlements. However, the challenges with UFM only become more overwhelming if one transfers the thinking to a larger neighbourhood, or to an entire urban area. Overcoming this issue requires that one first acknowledges the challenges that property rights to a diversified possessional and relational urban structure entail for the upscaling of FM to UFM. Secondly, it requires recognizing that different legal entities emphasize and pursue their goals of sustainability in their own different ways. Often very different from how owners of POPS emphasize their commercial ownership interests. Thirdly, it is important to recognize both institutional and cultural variations between countries regarding the understanding of what constitutes public and private spaces and how they will affect how to use UFM positively to pursue UN SDG 11. This is a limitation for this paper. The social embeddedness of institutional structures – norms, customs, traditions, etc. – is too often taken for granted in research on economic change [85]. Thus, more research about UFM, POPS and UN SDG 11 in different contexts is needed, particularly concerning how implementation of UFM and how the POPS' configuration of property rights and relations can contribute to UN SDG 11 Sustainable Cities and Communities. During the last decades, in many cities and urban areas POPS have become a standard building block. However, the POPS' particular configurations of property rights and relations are not necessarily standard. Finally, there is an urgent need for implementing property rights and property relations in UFM standards. Without it, making cities inclusive, safe, resilient, and sustainable will be difficult.

## References

- [1] UN 2022 *The Sustainable Goals Report 2022*
- [2] Tasan-Kok T 2012 Introduction: Contradictions of Neoliberal Urban Planning, ed T Tasa-Kok and G Baeten *Contradictions of Neoliberal Planning* (Springer) p 1
- [3] Harvey D 2005 *A brief history of neoliberalism* (Oxford: Oxford University Press) p 3
- [4] Sager T 2011 Neo-liberal urban planning policies: A literature survey 1990–2010 *Progress in Planning* **76** p 149
- [5] Kayden JS 2000 *Privately owned public spaces. The new York experience* (New York: John Wiley & sons)
- [6] Németh J 2009 Defining a public: the management of privately owned public space *Urban Studies*

- 46**(11) p 2464
- [7] Rhodes RAW 2007 Understanding Governance: Ten Years On *Organization Studies* **28**(08) p 1244
- [8] Brenner N, Peck J and Theodore N 2010 After Neoliberalization? *Globalizations* **7**(3) p 335
- [9] Gray K and Gray SF 1999 Civil rights, civil wrongs and quasi-public space *European Human Rights Law Review* **4** p 64
- [10] Maliene V, Alexander K and Lepkova N 2008 Facilities Management development in Europe *International Journal of Environment and Pollution* **35**(2-4) p 171-84
- [11] IFMA 2003 *What is facility management?*
- [12] Barret P and Baldry D 2003 *Facilities Management Towards Best Practice* 2<sup>nd</sup> edition (Oxford: Blackwell) p xi
- [13] CEN 2006 *EN 15221-1 Facility Management – Part 1: Terms and Definitions*
- [14] Atkin B and Brooks A 2015 *Total facilities management* 4<sup>th</sup> edition (Chichester: Wiley-Blackwell) p 6-7
- [15] ISO 41011:2017 (en) *Facility Management – Vocabulary*
- [16] Roberts P 2004 FM: new urban and community alignments *Facilities* **22**(13-14) p 349-52
- [17] Alexander K and Brown M 2006 Community-based facilities management *Facilities* **24**(7-8) p 263
- [18] Elkington J 1994 Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development *California Management Review* **36**(2) p 90-100
- [19] Slaper TF and Hall TJ 2011 The Triple Bottom Line: What Is It and How Does It Work? *Indiana business review* **86**(1) p 4-8
- [20] Hoffmann B, Munthe-Kaas P, Larsen JL and Elle M 2010 Facilitating creative environments: when the winds of creativity hit FM *EuroFM Journal International Journal of Facilities Management* Special issue: Integration of Core Business and Facility Management Proceedings of the 9<sup>th</sup> EuroFM Research Symposium Madrid 1-2 June p 17
- [21] Larsen JL, Elle M, Hoffmann B and Munthe-Kaas P 2011 Urbanising facilities management: the challenges in a creative age *Facilities* **29**(1-2) p 80-92
- [22] Tammo M and Nelson M 2012 A critical review of the concept of facilities management in community-based contexts, ed SD Smith *Procs 28th Annual ARCOM Conference*, 3-5 September 2012 Edinburgh UK Association of Researchers in Construction Management p 1379-88
- [23] Michell K 2013 Urban facilities management: a means to the attainment of sustainable cities? *Journal of Facilities Management* **11**(3) p 1
- [24] Boyle L and Michell K 2017 Urban facilities management: a systemic process for achieving urban sustainability *International Journal of Sustainable Development and Planning* **12**(3) p 454
- [25] Salaj AT, Bjoerberg S, Boge K and Larssen AK 2015 Increasing attractiveness by LCC facility management orientation *IFAC-PapersOnLine* **48**(3) p 149-54
- [26] Bjoerberg S, Sæterøy R, and Salaj AT 2019 MultiMapping and Urban FM *Journal for Facility Management* **17** p 27-44
- [27] Bröchner J, Haugen TI and Lindkvist C 2019 Shaping tomorrow's facilities management *Facilities* **37**(7-8) p 366-80
- [28] Larato F, Bjoerberg S and Haddadi A 2019 Urban facility management - Study on practices in regenerated urban areas, ed B Grum *4<sup>th</sup> Conference of Interdisciplinary Research on Real Estate, 2019 Book of proceedings*, CIRRE Conference Trondheim September 12-13 (Ljubljana: Institute of Real Estate Studies) p 151-60
- [29] Nijkamp JE and Mobach MP 2020 Developing healthy cities with urban facility management *Facilities* **38**(11-12) p 819-33
- [30] Xue Y, Lindkvist CM and Salaj AT 2019 Exploring the roles of facility management for liveable cities, ed M Tucker *Research papers for the the 18th EuroFM Research Symposium, 12-15 June in Dublin, Ireland* p 215

- [31] Lindkvist C, Salaj AT, Collins D, Bjørberg S and Haugen TB 2021 Exploring urban facilities management approaches to increase connectivity in smart cities *Facilities* **39**(1-2) p 96-112
- [32] UN 2022 *The Sustainable Goals Report 2022*
- [33] Lindkvist C, Salaj AT, Collins D, Bjørberg S and Haugen TB 2021 Exploring urban facilities management approaches to increase connectivity in smart cities *Facilities* **39**(1-2) p 96-112
- [34] Temeljotov Salaj AT and Lindkvist CM 2021 Urban facility management *Facilities* **39**(7-8) p 533
- [35] Temeljotov Salaj AT and Lindkvist CM 2021 Urban facility management *Facilities* **39**(7-8) p 528
- [36] Dasandara SPM, Weeratunga WAPR and Dissanayake P 2022. Urban Facilities Management: A way of Attaining Sustainable Cities in Sri Lanka, pp. 345-357, ed I Pal and S Kolathayar *Sustainable Cities and Resilience – Select Proceedings of VCDRR 2021* (Singapore: Springer Nature)
- [37] Xue Y, Lindkvist CM and Salaj AT 2019 Exploring the roles of facility management for liveable cities, ed M Tucker *Research papers for the the 18th EuroFM Research Symposium, 12-15 June in Dublin, Ireland* p 221
- [38] Munzer SR 1990 *A theory of property* (Cambridge: Cambridge University Press) p 16
- [39] Steiger O 2006 Property Economics versus New Institutional Economics: Alternative Foundations of How to Trigger Economic Development *Journal of Economic Issues* **40**(1) p 183-208
- [40] Alchian A and Demsetz H 1973 The property right paradigm *The Journal of Economic History* **33**(1) p 17
- [41] Hohfeld WN 1917 Fundamental Legal Conceptions as Applied in Judicial Reasoning *The Yale Law Journal* **26**(8) p 710-70
- [42] Blackmar E 2006 Appropriating "the commons": The tragedy of property rights discourse, in Low S and Smith N *The Politics of Public Space* (London: Routledge) p 81-103
- [43] Alchian A and Demsetz H 1973 The property right paradigm *The Journal of Economic History* **33**(1) p 17
- [44] Honoré AM 1961 Ownersip, in Coleman JL 2000 Readings in the Philosophy of Law (New York: Routledge) p 370-75
- [45] Libecap GD 2003 Contracting for Property Rights, in Anderson TL and McChesney FS (eds.) *Property Rights: Cooperation, Conflict, and Law* p 142-67 (Princeton: Princeton University Press)
- [46] Burton PS 2004 Hugging Trees: Claiming de Facto Property Rights by Blockading Resource Use *Environmental and Resource Economics* **27**(2) p 136
- [47] Smith N and Low S 2006 Introduction: The imperative of public space, in Setha L and Smith N (eds.) *The politics of public space* (New York: Routledge) p 3-4
- [48] Samuelson P 1954 The pure theory of public expenditure *Review of Economics and Statistics* **36**(4) p 387-89
- [49] Buchanan J 1965 An economic theory of clubs *Economica* New Series **32**(125) p 1-14
- [50] Weintraub J 1997 The theory and politics of the public/private distinction, in Weintraub J and Kumar K (eds.) *Public and Private in Thought and Practice. Perspectives on a grand Dicotomy* (Chicago: University of Chicago press) p 1-33
- [51] Tyndall A 2010 'It's a public, I reckon': Publicness and a Suburban Shopping Mall in Sydney's Southwest *Geographical Research* **48**(2) p 123-36
- [52] Bjerkeset S and Aspen J 2015. Gaven til byen – Tjuvholmen og offentlige byrom *Nytt Norsk Tidsskrift* **32**(4) p 329-40
- [53] Oldenburg R 1989 *The great good place. Cafes, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community* (New York: Paragon House)
- [54] Zukin S 1995 *The culture of cities* (Oxford: Blackwell) p 28
- [55] Kohn M 2004 *Brave New Neighborhoods. The Privatization of Public Space* (London: Routledge)
- [56] Urry J 1995[2002] *Consuming places* (London: Routledge) p 188
- [57] Douglas M 2001[1966]. *Purity and Danger. An Analysis of Concepts of Pollution and Taboo*

- (New York: Routledge) p 36
- [58] Kohn M 2004 *Brave New Neighborhoods. The Privatization of Public Space* (London: Routledge)
- [59] De Magalhães C 2010 Public Space and the Contracting-out of Publicness: A Framework for Analysis *Journal of Urban Design* **15**(4) p 559
- [60] Raco M 2003 Remaking Place and Securitising Space: Urban Regeneration and the Strategies, Tactics and Practices of Policing in the UK *Urban Studies* **40**(9) p 1871
- [61] Parkinson JR 2013 How is space public? Implications for spatial policy and democracy *Environment and Planning C: Government and Policy* **31** p 688
- [62] Layard A 2010 Shopping in the Public Realm: A Law of Place *Journal of Law and Society* **37**(3) p 412-41
- [63] Staeheli LA 2009 Political geography: democracy and the disorderly public *Progress in Human Geography* **34**(1) p 67
- [64] Lomell H 2007 Videoovervåking – ulike logikker mellom private og politiet, in Gundhus HO, Larsson P and Myhrer TG (eds.) *Polisiær virksomhet. Hva er det – hvem gjør det?* PHS Forskning 2007:7 p 61-83 (Oslo: Politihøgskolen)
- [65] Catharina T 2011 Soft Policies of Exclusion: Entrepreneurial Strategies of Ambience and Control of Public Space in Gothenburg, Sweden *Urban Geography* **32**(7) p 989-1008
- [66] Bauman Z 1997 *Postmodernity and Its Discontents* (New York: NYU Press) p 17-8
- [67] Listerborn C 2005 How public can public spaces be? *City* **9**(3) p 381-8
- [68] Chiodelli F and Moroni S 2015 Do malls contribute to the privatisation of public space and the erosion of the public sphere? Reconsidering the role of shopping centres *City, Culture and Society* **6** p 35-42
- [69] Toolis E and Hammack P 2015 “This is My Community”: Reproducing and Resisting Boundaries of Exclusion in Contested Public Spaces *American Journal of Community Psychology* **56** p 370
- [70] Webster C 2003 The Nature of the Neighbourhood *Urban Studies* **40**(13) p 2591
- [71] Staeheli L and Mitchell D 2008 ‘Don’t Talk with Strangers’ *Griffith Law Review* **17**(2) p 531-45
- [72] Németh J and Schmidt S 2007 Toward a Methodology for Measuring the Security of Publicly Accessible Spaces *Journal of the American Planning Association*, **73**(3) p 283-97
- [73] Oc T and Tiesdell S 1999 The Fortress, the panoptic, the regulatory and the animated: planning and urban design approaches to safer city centres *Landscape Research* **24**(3) p 265-86
- [74] Webster C 2010 Pricing accessibility: Urban morphology, design and missing markets *Progress in Planning* **73** p 97
- [75] Neal Z 2010 Seeking common ground: Three perspectives on public space *Proceedings of the Institution of Civil Engineers – Urban Design and Planning*, **163**(2) p 60
- [76] Samuelson P 1954 The pure theory of public expenditure *Review of Economics and Statistics* **36**(4) p 387-89
- [77] Tiebout C 1956 A pure theory of local expenditure *Journal of Political Economy* **64**(5) p 417
- [78] Webster C 2003 The nature of the neighborhood *Urban Studies* **40**(13) p 2599
- [79] Webster C 2010 Pricing accessibility: Urban morphology, design and missing markets *Progress in Planning* **73** p 99
- [80] Warner ME 2011 Club goods and local government *Journal of the American Planning Association* **77**(2) p 157
- [81] Buchanan J 1965 An economic theory of clubs *Economica* New Series **32**(125) p 2
- [82] Ostrom E 1990 *Governing the commons. The evolution of institutions for collective action* (Cambridge: Cambridge University Press)
- [83] Holsen T 2018a Kampen om fellesrommene: Om ekskludering og inkludering i de urbane offentlige byrom *Kart og Plan* **78**(2) p 101-13
- [84] Holsen T 2018b Neoliberal urbanitet – om betingelser for bruken av de urbane offentlige rommene *Tidsskrift for samfunnsforskning* **59**(3) p 303-17
- [85] Ostrom E 2005 *Understanding institutional diversity* (Princeton: Princeton University Press)