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**Design types in diversified city administration**

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Design types in diversified city administration

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**Abstract:** Design is increasingly used to develop public services, and considerations have arisen regarding how to gain best value from it. Design ladders and design maturity models are commonly referenced also in the public sector, but we argue that their adequate use must rest on an informed view of the diversity of design activities in the public sector organizations. The world’s major cities are large and highly diversified organizations. Our case study of one of them, the city of Helsinki, reveals 23 distinct types of design activities, distinct in terms of the process, outcomes, and agency that design has. These activities can be grouped into six different clusters. These lay the ground for each other and support the cultural transformation of the organization towards being a more citizen-centric organization. At the same time, they also create a design management challenge and confusion over what “design” is and what it can do.

**Keywords:** city organization; public sector; service design; human-centered design

1. Introduction: Public sector design and its diversity

In the public sector, design in its traditional tangible forms is established as part of public governance, particularly via the hierarchical city planning and urban design processes that materialize the institutions and services of the state and the city (see, e.g., Berglund, 2013). New kinds of design activities have gained prominence during the last two decades. They have been driven by the growth of design practices that emphasize human-centered and intangible aspects, most importantly participatory design and co-design (Simonsen & Robertson, 2013; Botero et al., 2020), design for services (Meroni & Sangiorgi, 2011; Sangiorgi, Prendiville, & Jung, 2017; Penin, 2018), design for policy (Bason, 2016, 2018; Howlett, 2019; Junginger, 2013), and design thinking in business and management (Dunne & Martin, 2006). Design’s role in value creation has been acknowledged by national design strategies and innovation policies (Bason & Schneider, 2016; OECD, 2017). The demand for design is connected to the increasingly recognized complexity of the problems faced by public admin-
istration (Bovaird, 2007; Torffing, 2016). Also, the quest for participation and citizen engagement in society at large has made the human-centered processes of design appeal to public administrations (Torffing, 2016; Hyysalo et al., 2016).

Since design has become increasingly appropriated in the public sector, considerations have arisen regarding how to gain best value from design activities and how to potentially deepen and widen the use of design in public sector organizations (Design Council, 2013). This bears close affinity to what design integration and design management have done in private companies (Dumas & Minzberg, 1989; Micheli et al., 2018). For instance, the “public sector design ladder” of the Design Council (2013) depicts the evolution of design in public organizations, ranging from one-off projects to design as a widely adopted organizational capability, and further, onto design for policy matters. Junginger (2009) has identified four degrees of integration: design as an external resource; design as part of some organizational function, such as marketing; design at the core of the organization; and design thinking and methods being integrated into all aspects of the organization as a means to inquire about the future and to develop integrated solutions.

Yet, being first developed in the context of design in private companies, the design maturity ladder, and management models are prone to seeing the organization in which design is integrated as a relatively unified entity in terms of its outputs and processes. Whilst this can match well with design within different government or city branches (e.g., within a tax office; Junginger & Body, 2008), it matches less well with a base observation that the world’s major cities are large, complex, and highly diversified organizations with special characteristics and demands for design. To “elevate” design in such settings and to gain increased value out from it, better insight is needed, not just into how encompassing the use of design is but also into its use when paired with the application domains to form different types of design activities. We thus seek to examine:

*What diversity features in the processes and outcomes of the design activities of a large diversified city administration once it has advanced beyond the early use of design?*

To meet this aim, we focus on design activities in the city of Helsinki, the capital of Finland. Although the new types of public design have also been actively utilized in the city organization for well over a decade. In the next section we deepen the discussion on the diversity and embeddedness of public sector design and then move on to discuss our interview and document analysis-based research in Section 3. The case study results are presented in Section 4, and the concluding section both sums up the findings and spells out their implications for research, design practice, and public organizations that utilize design.
2. The diversity and embeddedness of design in the public sector

Strategic design units in cities and a growing number of (service) designers are nowadays employed directly in city departments, and cities are major procurers of services from private design consultancies. In addition to city services and the built environment, design plays a role in city branding and marketing where it is harnessed as vehicle for competition between urban regions (Rantisi & Leslie, 2006) and the shift towards participatory planning and urban development (Forester, 1999). Since 2008, the World Design Capital program has been influential in promoting the use of design as a strategic driver in cities (World Design Organization, n.d.). Cohorts of public sector innovation labs resting on new forms of design have emerged globally (Bason & Schneider, 2016; Tõnurist, Kattel, & Lember, 2017; McGann, Blomkamp, & Lewis, 2018; Bailey & Lloyd, 2016).

The literature on the “new” deployment of design in public sector approaches emphasizes some common characteristics that could be described as the core competencies of design in the public sector. These include human centeredness and sensibility to the diversity of user needs; a solution- and innovation-oriented process; a participatory, collaborative, and cross-siloed way of working; a holistic and systems view of complex problems; the ability to give concrete shape to abstract concepts and ideas; creative, visual, and tangible tools; and the skills for prototyping (Design Council, 2013; Bason, 2018, pp. 175–184; Blomkamp, 2018, p. 732; Penin, 2018, p. 153; Rebolledo, 2016). Designers can work in an operational or strategic role and with very diverse aims, ranging from the improvement of existing solutions to envisioning future service systems (see, e.g., Meroni & Sangiorgi, 2011, pp. 202–204). For instance, the term city design (in Finnish, kaupunkimuotoilu) has been used in Finland, denoting various design thinking, service design, participatory design, co-design, social design, and policy design processes in an urban context.

The related literature has recognized the important differences that there may be in the scope of what is being designed. For instance, Meroni and Sangiorgi (2011, pp. 202–204) identified four scopes of what is being designed: designing interactions, relations, and experiences; designing interactions to shape systems and organizations; exploring new collaborative service models; and imagining future directions for service systems. Sangiorgi, Prendiville, and Jung (2017, p. 28) provided other angles on the scopes of service design: service design as a distinct, designed deliverable; service design as a people-centered creative and systemic process; and service design as a people-centered and collaborative mindset and approach.

What the findings on the potential, scopes, and types of design call for in the public sector organizations are empirical appraisals of what kinds of design activities are involved in different contexts as city administrations are among the most diversified organizations that exist, their scope spanning from roadworks to healthcare, and from education to symphony orchestras, our case organization offering in total over 700 differentiated services as we detail next.
3. The case, data, and methods

3.1 Design in Helsinki

Helsinki is the capital of Finland and its city administration employs 39,000 staff members in its different units (see below). Various design projects have been used in Helsinki throughout this millennium. The Helsinki World Design Capital year, 2012, highlighted the social and everyday role of design, introduced new areas like service design to the general public, and raised the city’s international profile through design (City of Helsinki, 2021a; Berglund, 2013). Another key milestone was the Design Driven City initiative of 2013–2015 that brought “city designers” to work with city departments and projects, relying on service design as well as rapid experiments and prototyping. In 2016, Helsinki became one of the first cities in the world to employ a Chief Design Officer to lead the design activities of the city. Around the same time, the Helsinki Lab was established as an internal team in the central administration, formed to support the implementation of design in the organization. Design was also embedded in the city’s strategy for 2017–2021 (City of Helsinki, 2021a, 2021b). The current communications material of the city of Helsinki states that “Design is a strategic tool for Helsinki to build the most functional city in the world and smooth everyday life for all. Design benefits everyone and people of all ages from toddlers to seniors in Helsinki.” (City of Helsinki, 2021b). The stated benefits of design include improving the customer experience of services, reforming the operating culture and organization of the city, and seeking to build a distinctive city brand (ibid.).

Design is used across the administrative organization of the city. Under the politically elected City Council and City Board, the Central Administration of the city includes the City Executive Office that functions as the main planning and executive body for the city council, board, and mayors. The Chief Design Officer and the majority of strategic- and organization-level design work are situated within this department. Most of the design activities take place inside the four large divisions of the city. The Education Division provides education from preschool to upper secondary levels. The Urban Environment Division is in charge of land use and city infrastructure, as well as buildings and public areas, while the Culture and Leisure Division takes care of cultural, youth, and sports activities. The Social Services and Healthcare Division delivers social, healthcare, and hospital services. In addition, the City Group contains the business entities and foundations controlled by the city and the joint municipal authorities, such as the Helsinki Regional Transport Authority (City of Helsinki, 2020). All these divisions and companies have some in-house designers; design work is procured from commercial (service) design consultancies and many projects are carried out utilizing design methods (in part or in whole) by other staff members who have been briefly trained in design as part of the city’s design integration efforts (see below; compare to the “silent design” by Gorb & Dumas, 1987; Lee, 2015, and to the ways of organizing design in Dumas & Minzberg, 1989). It is also important to recognize that different divisions and units operate under different legislative contexts with respect to their obligations and rights to produce and develop the over 700 services Helsinki city offers for its inhabitants.
3.2 Data and methods
To gain a better grasp of design activities in the city of Helsinki, in 2019 the authors were commissioned by the city to investigate the scope of design and the potential to further and measure it. To this end, a semi-structured interview study was conducted for which Helsinki city representatives identified the most knowledgeable staff members regarding the utilization of design in the city in its different divisions, units, and companies. The 14 people thus identified and interviewed all had extensive and over a decade-long history of carrying out and coordinating design in different flanks and on different hierarchical levels of the city. The interviewee sample thus covered well the different types of design carried out within the city administration; mostly, at least two interviewees had in-depth knowledge of the past and current design use in each unit, as well as the various initiatives formed to promote design in the organization more broadly.

The interview questions covered the design activities in which the interviewee had participated and coordinated, as well as covering the advantages and challenges of applying design in the projects. At the end of the interview, a tentative listing of different types of design was presented for their critical scrutiny, comments, and additions. The expert interviews lasted for, on average, an hour and were voice recorded and transcribed; in some interviews an additional interviewer from the city of Helsinki joined the Aalto researcher team.

All of the Aalto researchers read the interview transcripts independently and worked on the analysis together. The analysis focused on the different types of design projects and activities that have been ongoing in the city of Helsinki and on the prerequisites and points of friction involved in the uptake of design in the city (reported in another article). The initial listing of design activities that differed importantly comprised 30 types, which were redacted to 23 different design activities that could be grouped into six different categories (see the results below).

To further validate and deepen both the typology of different design activities and the prerequisites for a wider and deeper uptake of design in the city, a half-day workshop was held at the town hall with 15 further city employees involved in design. This resulted in some additions to and reformulations of the types and clusters of design activities, as well as elaboration on how the different design activities related to each other.

4. Results

4.1 The characteristics of the design activities in the city of Helsinki
Analysis of the different design activities in Helsinki resulted in 23 types of design in which either the aims, processes, outcomes, or skills were significantly different (see Table 1). These can be grouped into six types of design activities seen in the city, namely: (1) the design of service solutions, (2) design in the built environment, (3) design in the development of an organization, (4) design know-how and training, (5) design in participation and collaborative work, and (6) design in strategy and branding work. Next, we shall dive deeper into
each of these activity groups and describe what kind of projects and design activities are included in them.

Table 1. Design activities in Helsinki

<table>
<thead>
<tr>
<th>Category</th>
<th>Activity</th>
<th>Examples and descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design of service solutions</strong></td>
<td>Improving or redesigning existing services</td>
<td>Redesign of Helmet library portal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The most significant group with most projects</td>
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<td></td>
<td>Designing new services</td>
<td>Varaamo space reservation service</td>
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<td></td>
<td></td>
<td>Personal budgeting in Social and Health Care Division</td>
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<td></td>
<td>Design as a part of larger (construction) projects</td>
<td>Oodi Central Library</td>
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<td></td>
<td></td>
<td>Kalasatama Health and Well-being Centre</td>
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<tr>
<td></td>
<td></td>
<td>Redesign of the City Hall</td>
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<tr>
<td></td>
<td>Developing internal services</td>
<td>Service design for the HR development discussions</td>
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<tr>
<td></td>
<td></td>
<td>Redevelopment of the Ahjo electronic case management system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development of support services in Social and Health Care Division</td>
</tr>
<tr>
<td><strong>Design in the built environment</strong></td>
<td>Service design for interior spaces</td>
<td>Spatial renovations of local libraries</td>
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<td></td>
<td></td>
<td>City working environment projects</td>
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<tr>
<td></td>
<td>Design manuals</td>
<td>Urban Environment Division’s design manual for the built environment</td>
</tr>
<tr>
<td><strong>Design in the development of the organization</strong></td>
<td>Updating and streamlining the City’s development processes</td>
<td>Helsinki loves developers</td>
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<td></td>
<td></td>
<td>Multi-division planning for new</td>
</tr>
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<td></td>
<td>Increasing customer perspective and user</td>
<td>Customer profiles for the Culture and Leisure Division and for the Regional Transport Authority</td>
</tr>
<tr>
<td></td>
<td>understanding for future projects</td>
<td></td>
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<td></td>
<td>Creating design tools for the city</td>
<td>The Participation Game</td>
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<td></td>
<td></td>
<td>Urban resident profiles</td>
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<td></td>
<td>Developing co-operation and projects beyond</td>
<td>Development of operations within and between city divisions</td>
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<td></td>
<td>individual service developers</td>
<td>Lauttasaari Service Network</td>
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<tr>
<td><strong>Design know-how and training</strong></td>
<td>Coaching and training design</td>
<td>Design training projects</td>
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<td></td>
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<td>Design projects in which staff training is the main objective</td>
</tr>
</tbody>
</table>
### Design types in diversified city administration

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing service design awareness and implementing learnings</td>
<td>Helsinki Lab</td>
</tr>
<tr>
<td>Design as a learning tool</td>
<td>Design education</td>
</tr>
<tr>
<td>Design in participation and collaborative work</td>
<td>The Participation Game</td>
</tr>
<tr>
<td></td>
<td>Implementation of urban profiles</td>
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<tr>
<td></td>
<td>Youth department’s implementation day</td>
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<td>Designing for resident engagement and participation</td>
<td>The City of Helsinki’s Participation and Interaction Model</td>
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<td></td>
<td>Participatory Budgeting</td>
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<tr>
<td>Designing idea competitions and the sparring of solutions</td>
<td>Library’s idea nuggets contest</td>
</tr>
<tr>
<td>Resident communities and customer communities</td>
<td>Friends of the Central Library</td>
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<td></td>
<td>Library Tribe</td>
</tr>
<tr>
<td>Design as part of Living Lab activities</td>
<td>Smart Kalasatama</td>
</tr>
<tr>
<td>Design in strategy and branding work</td>
<td>Foresight and Strategic scenario work</td>
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<td>Scenario work in the preparation of the city’s strategy</td>
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<tr>
<td></td>
<td>Participatory models</td>
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<td></td>
<td>Clarification of the visions of different divisions</td>
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<td>Design leadership</td>
<td>Chief Design Officer</td>
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<tr>
<td></td>
<td>Helsinki Lab</td>
</tr>
<tr>
<td>Integrating design in marketing</td>
<td>Participatory communication</td>
</tr>
<tr>
<td>Design in branding work</td>
<td>World Design capital 2012</td>
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<tr>
<td>Visualizing information</td>
<td>City web page renewal 2021</td>
</tr>
<tr>
<td>Designing signposts and guidance</td>
<td>Bicycle signposts in public transit</td>
</tr>
<tr>
<td>City design concepts, exceptional design initiatives</td>
<td>Mini-cottages on camping islands</td>
</tr>
<tr>
<td></td>
<td>5G-base stations design competition</td>
</tr>
</tbody>
</table>

1) The design of service solutions

The most intuitively identifiable type of “city design” can be found in design that produces externally and internally facing services. In the city of Helsinki, this category is far from unified or characterizable via common textbook design models. At one end there are typical service design projects for new physical services and spaces for citizens, commonly adhering to the double diamond process or other well-known design processes. New digital services are also plentiful, and their design processes also feature more agile software development methodologies. The entirely new services are, however, less plentiful than redesigning and upgrading existing services, both digital and physical. The redesign projects typically have a
more pre-defined scope and restricted design process as they may even include rethinking and redefining some core aspects, such as who the main customer groups are and how these are best served. A good example of a new service design project is the “Varaamo” (in English, “reservation hub”) service, a web service that allows the citizens to reserve a space, for example, for working or a meeting, for their own event, for recording music, or for doing sports.

Internally facing new service design and improvement projects complement the externally facing ones and include examples such as the service design of the platform, format, and practice through which HR annual development discussions are held and the revamp of the city’s central billing and project register, the “Ahjo” electronic case management system.

The dynamics are somewhat different in larger construction and spatial projects in which new human-centered and collaborative design methods have become increasingly used alongside traditional architectural and spatial planning procedures. Here, service design and codesign are predominantly used in the requirements and concept design phases and their results are then merged with more traditional planning for engineering and construction planning. Examples are e.g. the design of new social and welfare centers and multi-purpose activity centers in city districts that combine, for example, youth, library, and vocational training activities under one roof. The internally facing construction projects have recently also used service design to unite spatial and process design, such as in the new headquarters for the culture and leisure division, and it is increasingly also used in integrating the internally and externally facing aspects of city premises, such as in the renovation of the Helsinki City Hall.

Common denominators across the “designing of service solutions” category for the city of Helsinki is that they result in working solutions for citizens or employees. Customer value, customer satisfaction, and design participation have been emphasized as design drivers for reaching effective services, along with the traditional drivers of price and technical quality considerations. It has been increasingly recognized that these solutions also create brand value, that processes impact on the organization, and that the projects gradually increase the city’s design capabilities as well. Central to success is how well and precisely the design that is needed has been identified in the procurement and tendering as the adequate project scope and design integration depend greatly on the scope and difficulty of the project, as well as on the novelty and criticality of the service. Finally, there is a mix of internally designed, commissioned, and mixed ownership design work across these service solutions.

2) (Service) Design in the built environment

The built environment is predominantly designed through traditional urban, spatial, and architectural planning and their established procedures. In recent years, service design and participatory design activities have been initiated to support spatial planning, often with the aim to better integrate the spatial design, and the design of operations and services offered for citizens. Some such projects can be stand-alone, typically small-scale building and spatial
design endeavors, such as the design of novel camping huts for Helsinki’s many islands or new concepts for benches in Helsinki’s parks. In larger projects, there is an overlap with service-designed solutions, with the difference that in this category, service design rather provides concepts and inputs rather than implementable solutions. Examples here are the renovation projects of several Helsinki district libraries and the extensive participation design activities in the planning of the city’s new flagship library, Oodi (Hyysalo & Hyysalo, 2018; Hyysalo et al., 2019).

A common denominator in these projects is that they differ markedly from normal architect-driven urban, landscape, or building design in being user driven (and also often interactive), having cohesively integrated new service design in the new space, and emphasizing the functionality and visual quality of the end result. Whilst there is an overlap with service design solutions in larger projects, the design in the built environment category projects differ in regard to whether the main solution is physical, or digital or procedural.

3) Design in the development of the organization

The third category of design includes activities that aim at renewing the city’s development and operations processes. These design activities can be pivotal for the development of service solutions but do not in themselves result in finalized solutions. These might aim at increasing the customer perspective and user understanding of future projects, such as the design of customer profiles for the Helsinki region’s public transport and the culture and leisure division. These activities often include the development of different design tools for the city; an even more concrete example than these profiles is the highly successful Participation Game, by which different units gain a means and procedure with which to gauge what kind of citizen participation would suit them best; thus far, it has been played over 2000 times within the city. A key driver in the use of design in organizational development has been the need to expand the development activities beyond single service providers and divisions, such as the preparations for developing the health and social welfare service network of a neighborhood (Hyvärinen, Lee, & Mattelmäki, 2015; Laitinen et al., 2017).

The common denominators and success factors in this category of using design differ markedly from those of solutions. The impacts are foremost indirectly manifested in the new operating models and in the smoother implementation of subsequent solution projects. To this end, the competence development in both design and cross-division collaboration and the breadth of staff involvement are among the most important factors, placing a heightened emphasis on training the middle management and substance experts who would own solution projects.

4) Design know-how and training

After design organizational development comes explicit design training that can also occasionally be built into project form. This contains design training projects, raising service design awareness, and design education. A prime example of this category is the Helsinki Lab and its activities that aim to support design utilization in different projects and functions.
It is notable in that service design training has led to more agile development in organizations. Furthermore, many ideas and concepts that have been produced in training and implementation tools have been put into practice. Similarly to design in organizational development, the impacts are foremost indirect and visible in subsequent projects, and hence, the criterion of success is the number of members of staff involved and the understanding, insight, and know-how generated by the involvement.

5) Design in participation and collaborative work

Citizen participation in public service design and production has gained increasing impetus in the last two decades in Finland, as it has elsewhere in Europe (Bovaird, 2007; Torfing et al., 2016). Perhaps owing to the tradition of participatory and codesign within the design field itself, designing for and in citizen participation has taken many forms. These include designing and piloting the participatory budgeting model now widely used in Helsinki regarding public spending within its precincts (Hyysalo & Hyysalo, 2018; City of Helsinki, 2021); developing citizen communities to aid the city officials in service development, such as the Helsinki Loves Developers, Smart Kalasatama, Friends of the Central Library, and Library Tribe communities; and redesigning the procedures for legally binding statutory consultation procedures in general and area planning. In all these activities there has been a significant amount of (co-)design needed for the arrangements and tools by which citizens can effectively participate, in addition to the (co-)designing of the solutions by the citizens and city officials.

Notable in these design activities is that citizen participation has been the frontrunner area in the use of design in Helsinki, an area that has achieved profound results that have inspired other types of design activities in the city. It has also instilled cultural change within the city from expert driven culture to more facilitative culture as citizen ideas and concepts typically require further refinement and sparring from the civil servants before they can be turned into implementable services. At the same time, most citizen participation in public administration does not involve design but is rather focused on hearing and decision procedures related to service provision (Bovaird, 2007), this is also the case in the city of Helsinki.

6) Design in strategy and branding work

The final category includes supporting strategy work with foresight work and strategic scenario work, such as participatory models and clarifying the visions of different city divisions. It also includes utilizing design in branding as well making the design activities visible in the brand. An example case under this category is the scenario work that was conducted as a part of the preparation work for the strategy of the city of Helsinki.

In this category, design can be seen as a newcomer among more traditional strategy tools and processes. Design is used to generate more interactive strategy work, to concretize the future opportunities, and to clarify the messages for communication purposes. Design has been seen to fit this work as it is in the nature of strategy work to seek new perspectives and new tools.
4.2 Interrelations between the design activities in the city of Helsinki

The categorization of the design activities in the city of Helsinki demonstrates that the design activities are very diverse. As the city is an organization of approximately 39 000 employees, the design competencies also vary much from one project to another owing to both manager and staff design competencies. On one end of the scale, the design activities are very thorough and design has been integrated in many phases of the project, but on the other end, design has only been glued onto the project as a superficial addition or the project has no design activities at all.

The analytically different design activities feature important overlaps, cross-fertilizations, and ground laying for each other. Regarding direct overlaps, these are particularly present in larger projects. For instance, the Oodi central library project involved devising new arrangements for and in citizen participation, used design for organizational transformation and staff training; the production of new service solutions meant the integration of human-oriented design into more traditional architectural planning and was frequently used in Helsinki strategy and branding work for concretizing the use of design in the city.

Regarding cross-fertilization and laying grounds, most design projects fall into one design activity type and, in so doing, have typically been supported by work done in other design activity types. These interrelations can be schematically depicted (as follows in Figure 1). The greatest volumes of design are carried out within the design of service solutions and design in the built environment. These two design activity types are also the ones that produce the most externally and internally facing solutions that are amenable to impact or return on investment measurements regarding the use of design. Design in the development of an organization, and design know-how and training build competencies for the solution-oriented design activities. Design in strategy and branding work affects all other design activity types by providing a mandate for the design and clarifying its worth internally and externally. Finally, design in citizen participation and collaborative work takes input and its mandate from the solutions and strategy activities but has foremost been the frontrunner area in the utilization of design, and through elaborating the value(s) of customer and citizen centrism, it has also provided the rationale for the use of design in the other activities (the red arrows in Figure 1 point to inspiration in addition to direct influences).
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5. Discussion and conclusions

The research on and promotion of design in the public sector have, to date, concentrated on the “vertical” dimension of the utilization of design, exemplified in various maturity and ladder models (Design Council, 2013; Danish Design Centre, 2015; cf. Earthy, 1998; Micheli et al., 2018). In this view, the design activities that have indirect outcomes within the organization are depicted to be part of the integration of design in organizational processes and strategy. However, in large and diversified public administrations the different design activities do not “stack up” similarly. Out of the 23 design activity types identified in the city of Helsinki, most do not result in such direct outcomes in such a way that, for instance, user satisfaction would be an adequate measure for the success of design. Yet many of these design types are not somehow internal development but rather embedded within complex organizational and development processes. Moreover, how design is used for direct project outcomes features remarkable variation across different utilization contexts. Thus, due attention must be paid to the “horizontal” patterns in the utilization of design.

The case of Helsinki is arguably typical of the major cities of the industrialized world in that city administration features both high diversification in its activities and high autonomy within its divisions, as well as featuring central coordination and strategy across them. In such a context, once the uptake of design spreads beyond early labs and programs in such an organization, its success depends on how the different divisions and units appropriate it for their own different needs, cultures, and ends. The versatility of new human-oriented de-
Design approaches arguably helps widespread appropriation. At the same time, this combination of diversification and versatility has a propensity to result in high diversity in the types of design activities and the unique potential and challenges that follow on from it.

The diverse design activities complement and support each other in how design is being utilized and driven in the city organization. Some of them work as exemplars for others, others lay conditions for the utilization of design. Yet others, such as service design projects and design in the built environment in Helsinki, are the ones that generate measurable customer value in a city’s operations.

However, it is clear that the diversity also creates added difficulty for organizing and managing design in a manner that supports wide appropriation but also deepens the utilization of design. For instance, the adequate metrics and best practices used in promoting the different types of design differ dramatically just across the six main categories of design. Confusion and unclarity over what “design” is are also common amongst designers, managers, and other civil servants given that their experience of is derived from different types and contexts of utilization.

The organization is also challenged by the highly varying design maturity levels of not only its different units but also with respect to their competence in different types of design. The same public organization features over 700 services in different divisions and units that have differently competent patrons for and internal participants in design projects, both for in-house and commissioned projects. For instance, whilst public participation and service design projects in the city of Helsinki are mostly run in a well-integrated manner, the maturity level tends to drop once several city divisions are co-involved in similar projects. Such maturity variation sets challenges for consultancies to scale and scope their bids and briefs and, for example, for divisions to set adequate support and coordination measures for design work.

This article has concentrated on surfacing the diversity of design types in a large public administration body and indicates many further research directions. On the scale of organizations utilizing design, investigating the requisites and dynamics of the deeper and wider utilization of design in large diverse organizations is a clearly needed complementary research direction. In particular, longitudinal empirical research on how the utilization of design and design maturity have developed over time horizontally and vertically would be needed. On the scale of design management and project management, the diversity and varying maturity levels call for studies on how differently positioned professionals handle such conditions. Park-Lee’s (2020) study on how design consultants handle briefing processes with such organizational clients in the public sector and the study by Hyysalo et al. (2019a) on how designers build organizational relevance for citizen participation both point to the need for a wider area of research on the strategies and tactics that project owners and designers use to gauge the need and readiness to utilize design under such highly varying conditions.
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6. References


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