1. Background: the MSc SUPD in a rapidly changing world

In 2009 decisions were taken to develop the MSc Urban Planning and Design (UPD) at the School of Architecture and the Built Environment (ABE) at KTH, into a broader program incorporating, on the one hand, an already running MSc in Urban Regional Planning (URP) and, on the other, a new program in Environment and Planning (EP). The new program was given the name Sustainable Urban Planning and Design (SUPD), and the three subordinate programs were now denominated as tracks within the new MSc-program. The reasons for this reorganisation was manifold but the most important were, firstly, to create fewer and broader MSc-programs that better represented the profile of strong knowledge environments at ABE, secondly, raising the performance and quality of the programs and, finally, simplifying the communication and marketing of MSc-programs.

Less directly expressed but of equal importance were structural changes in the field that needed to be reflected in the profiles of the MSc-programs. One such profound change was the broad, powerful and acute debate on how to develop our societies into sustainable societies, where urban development suddenly had been addressed as maybe the most important field of action, raising completely new knowledge challenges for its practices. Another change with far reaching repercussions was the accelerating globalisation, quickly rearranging economic positions and roles between cities and regions around the world. These new agendas questioned the professional identities in the field, both when it comes to type and level of knowledge. Such profound structural changes asked not only for a new and updated organisation for the MSc but an analysis of its field, both as a field of practice and a field of knowledge. As part of the work towards a new and updated formulation of the identity and content of the new MSc-program SUPD, as well as its individual tracks, a preliminary analysis of that kind is presented here.
2. The knowledge cores in urban planning and design: its materials and media

2.1 The material of urban intervention: cities as self-organising systems

From the point of view of a MSc-program in urban planning and design it can be important and even necessary to point out the obvious fact that there would be cities in this world even if there were no professional planners or architects. More than anything, cities are prime examples of self-organising systems (Miller & Page 2007; Batty 2005; Johnson 2001; Portugali 2000), and furthermore self-organising systems of unusual complexity, comprising as they do different kinds of self-organising systems, such as social networks, economic markets and ecological systems, in interaction with each other. One can of course debate the degree of self-organisation in, for example, an economic market. Certain more or less institutionalised rules and roles will develop even in the most germinal market and structure it in certain directions. Whether these are part of the self-organisation of the system or the beginning of an external control system is open for debate. The point here is another, to stress the fact that urban planning and design are interventions in ongoing processes that have an internal logic; that cities without urban planning and design are not chaotic but present both highly developed structures and predictable processes, albeit not necessarily the structures and processes wished for. Order does not enter with the planner, politics enter with the planner.

Therefore, the need to understand cities as self-organising systems is one of the central challenges facing professionals in the field today. There is reason to talk about a long history of knowledge arrogance in relation to this, where professional practice too often has relied on superficial and preconceived understandings on the mechanisms of urban processes, which has lead to solutions working against the intrinsic forces of urban self-organisation, too often with failure as a result. The classic conflict between Jane Jacobs and Robert Moses was exactly about this, where Jacobs critique was the inability among architects and planners, Moses being the prime case, to understand cities as the complex systems they are, relying instead on simplified models that proved inept (Jacobs 1961). Jane Jacobs critique was, therefore, more profound than normally recognised in that it was a knowledge critique - planners did not know how to build cities - much more than an ideological critique - planners were building the wrong type of cities. While a lot has happened since, one can conclude that the field is yet to face up to the challenge formulated by Jacobs.

The mismatch between planning interventions and the inner logic of both economic and social systems in cities is obvious for any student of the planning practice since WWII. As a matter of fact, the history of modern urban planning and design is more often than not written as a history of failure. Even though this often spill over to an overly populist discourse of simplified criticism, one cannot deny the shortcomings of the field that, in the face of new tremendous challenges, not only ask for a knowledge development but
a knowledge leap. Not least is this the case when we come to environmental issues, where the relation between urban interventions like planning and design and its potential to support and develop ecological systems in cities has not even been seriously raised until recent years. These knowledge challenges have often been answered with a critical discussion of the actual role of, especially, the planner, where the all knowing master planner, like Robert Moses, has been heavily criticised and abandoned as a role model, at least in academia – in practice we can still find quite few claimants. While this critique has been most healthy and widened the understanding of the competences necessary for a contemporary planner, it can not be an excuse for the critical lack of adequate knowledge on the urban systems one is intervening in.

In the face of the increasing acceptance of the political embedding of the field and the ideological connotations inherent in many of its concepts, something that is also the case with self-organising systems that for many signal an argument for market solutions, it is, furthermore, necessary to be absolutely clear that the challenge for the field here is not how to comply with the forces in these systems, but how to through planning and design channel them in desired directions, that is, how to with a deeper understanding of their inner logic use these forces to reach the ends of urban planning and design. Self-organising systems is here used as a descriptive and analytical concept, with profound support in current knowledge development, not as a normative concept.

2.2 The media in urban intervention: space, institutions and discourse

The understanding of cities as self-organising systems is a fundamental background for many disciplines dealing with cities and urban development. What needs to be addressed more specifically from the point of view of a MSc-program in urban planning and design are the knowledge needs specific to the particular professions we can identify behind what we have called urban interventions. With cities rapidly growing in size, complexity and interurban context, the competence and even identity of these professions has been challenged.

The profession of urban planning can in broad terms be said to have followed a trajectory from architecturally based blue-print planning in the 1950:s towards a pluralism of approaches that rather stress process than product (Taylor 1998; Allmendinger 2002). At the same time, the professional practice of urban design can be described as a practice that from the same origin broke off as a branch of its own in the 1960:s and in more recent decades has taken a path towards more market driven project development. While the present state of urban planning and design is a huge current debate that would need to be developed extensively to make it justice, it is possible to see how the divergence of urban planning and urban design sketched above, has left the traditional core of the field, the strategic spatial planning and design of cities, surprisingly open.

This was exactly what was addressed in the development of the earlier mentioned MSc-program UPD, where this central field was, so to speak, re-conquered through an integration of certain dimensions of urban planning and certain dimensions of urban
design, under a new theoretical framework and a new professional profile. Still, while this has proven successful, it does not cover the full field of professional practice in urban planning and design, a step necessary to take within the new MSC-program.

To come to terms with this and identify the relevant professions in the field today, it is suggested here that, at the side of the necessary study of cities as self-organising systems – what we can call the *material* of urban interventions, it is essential to rediscover the *media* used to intervene in urban processes of different kinds, that is, the intermediary tools, specific to different professions in the field, used to channel and structure urban processes in desired directions. While knowledge in the field can be thematically structured, for example according to different types of urban systems: such as social, economic and ecological systems, practice in the field need to be structured by the particular skills necessary for intervention in such systems. While such interventions clearly need to be knowledge based, also in a scientific meaning, it is also absolutely necessary to also recognise them as practices, or even arts, in a knowhow sense. Such recognition leads us to focus the central need in any profession to develop deep familiarity with the media specific to its particular practice. As a matter of fact, it is suggested here that it is exactly this familiarity or *mastering* of such media that in the end defines both the competence profile and identity of these professions. It goes without saying that this must be the bottom line of any master education.

Furthermore, in contrast to the late but rapidly increasing interest in the understanding of the material of urban planning and design, that is, the logic of different types of self-organising urban systems, we believe that the understanding of the particular media necessary to master for successful intervention in such systems, still are widely neglected as a field of research and that its necessary knowledge development therefore is lagging behind. Not least, we believe that this is a major reason for the often expressed feeling of inadequacy in the professional practices of the field today.

3. The media in the professional practices of urban planning and design

It is important to stress the obvious but so easily overlooked fact that no professional practice can act directly on any urban system, self-organising or not, but are confined to creating, structuring and maintaining conditions for these systems through particular media, that is, any intervention is by definition indirect and use different intermediary instruments (Fig. 1). On a generic level, the medium for all these types of intervention can be said to be the same: *urban space*. It is by assuming a spatial shape or by receiving a geographic location or distribution in the city that these systems become urban, and it is through their spatial dimension that we can influence them through different media of spatial intervention. This spatial aspect of both systems and interventions can be important in a principal discussion, helping us make connection between different practices and systems. At the same time, it should not be overemphasised since it most of the time is just an example of how everything needs to take place somewhere, that is, the fact that most phenomena have a spatial dimension or a potential geography. More informative is to say that different types of interventions, typical for different practices
in the field, are executed at different levels of abstraction, where the inherent and shared spatial dimension is given particular expressions.

3.1 The media in urban planning and design: spatial systems

Another reason to not overemphasise the overarching concept of space in urban planning and design is that it is often used in a more specific and concrete meaning in particular areas, both academic and professional, in the field. The most evident example is to be found in urban design. The professional practice of urban design is exactly about trying to influence different self-organising systems in the city, for example the distribution of retail or pedestrian movement, by the structuring and shaping of urban space in a most tangible understanding of the word (e.g. Hillier & Hanson 1984). Characteristic for urban design is that this is also accomplished using very concrete media such as the structuring and shaping of landscape and buildings, that is, built form or what is usually referred to as urban form. Therefore, we can say that urban space is the characteristic medium used in urban design to intervene in different urban systems, and therefore also, the medium the urban designer need to master to be successful in her profession.

3.2 The media in urban planning and design: institutional systems

Similarly, other professional practices of urban intervention, such as urban planning or urban governance, are not able to directly influence urban processes, but are just like urban design directed to particular media to accomplish their objectives. Returning to urban space, while being the most tangible dimension of cities, it does not exist in isolation, but within a framework of rules and regulations, actors and agents, networks and local cultures, that is, a framework of formal and informal institutions (e.g. Ostrom 2001; Guy Peters 2005). In analogy with how urban space is used in urban design as a medium whereby one guides and directs urban processes, such institutions can be said to be the primary medium used in urban planning to guide and direct urban processes.

By saying that, the many overlaps between urban planning and urban design also become apparent. As earlier related, the two practices share a common history and both urban planning and urban design obviously can use both urban space and institutions in their effort to influence and direct urban processes. Still, and not least against the recent development of the professional identities in the field outlined earlier, there seem to be good reason to say that today, at least in a Swedish context, the professional urban planner finds her identity primarily in her knowledge of the institutional system of cities, while the urban designer finds it primarily in her knowledge on the spatial system of cities.

It needs to be stressed that what is thereby said is not that the urban planner does not have knowledge on the city as a spatial system or the urban designer of its institutional system, neither that these systems not are part of their field of practice. What is said is that the two systems have a different foreground-background relation in the two
professions – spatial systems are foreground in urban design and institutional systems background while the opposite is the case in urban planning, and that the one in the foreground is more important in building professional identity. In extension of this, what is said is that, from the point of view of the MSc-program SUPD, there is good reason to support and strengthen these identities, both as a means to develop more competitive professional profiles but also as a means to increase the attraction in collaboration between the two professions.

There are of course other anomalies here, and not only in the form of overlaps but in the form of gaps. Another characteristic side of urban planning practice not mentioned here is the development of physical infrastructure like roads, bridges and rail roads, as well as technological infrastructure for energy, waste and water. Such infrastructural systems are precisely used to, often in a very literal sense, channel urban processes, and, furthermore, can be regarded as a kind of institutionalisation of technology (xx). Infrastructural systems are also highly influential in urban design, both as a precondition for the practice but also as something directly influenced by urban design. At the same time, it seems incorrect to equate such infrastructural systems with spatial systems as they are dealt with and understood in urban design. It therefore seems useful to add infrastructural systems as a medium in its own right, located somewhere in between the earlier discussed spatial and institutional systems.

![Fig. 1. There are a range of intermediate tools used by professional practice in the field of urban planning and design, where the degree to which these are used and mastered within different professions are fundamental in the definition of the professional profile and identity (Image: KIT architects).](image)

### 3.3 Discursive systems

Finally, we need to acknowledge that both urban planning and urban design as interventions in urban processes are embedded in a sphere of policy and discourse, which set limits to both the range and effect of these professional practices. The impact of such discourse on both human mind sets and behaviour, both within and outside of these professions, should not be underestimated (e.g. Jørgensen & Phillips). As a matter of fact, discourse is precisely the prime medium for the last form of urban intervention to be discussed here, that is, urban governance. Discourse obviously can take many shapes and forms, from informal talk to formal policy documents, the latter being very close to an institution, and for successful practice in urban governance one need to master them all. We can then talk about a fourth medium for urban intervention, that is, discursive systems, this time a medium most characteristic for the particular form of urban intervention called urban governance.
Just as in the case of infrastructural systems discussed above, there can be reason to establish an additional medium also here. The idea of policy is so fundamental for any urban intervention, while especially for urban governance, that it could be confusing to hide it behind the broad concept of discourse. As earlier touched upon, just like infrastructure can be said to be the institutionalisation of technology, policy can be said to be a form of institutionalisation of discourse. We therefore propose it as a medium in its own right located somewhere in between discursive and institutional systems.

Once again, we should not overemphasise the identity between certain forms of intervention and particular mediums. It is obvious how one in urban governance not is confined to discursive systems or more specifically to policy, but, typically, also is intensely involved in the use and development of institutional systems. At the same time, discursive systems are a medium typically found in all the professions involved in urban intervention. The point here is not to create limits for professional practice, but rather the opposite, to find a core competence unique to a field where professional identity can be anchored, but from which the individual profession can extend its competence, or find incentive to develop cooperation with neighbouring practices.

4. An emerging model of urban planning and design as a field of practice

All in all, we can identify a set of media at different levels of urban intervention, fitted together in a nested hierarchy like boxes within boxes. It seems like the correct description here is a hierarchy of embeddings, where spatial systems are embedded in institutional systems, which in turn are embedded in discursive systems. They can all be linked to different professional practices aimed at guiding and governing urban processes in accordance with political objectives. Once again stressing the need to not overemphasise the identity between certain interventions and particular media, it still seems like the discussion above help us make a clarifying categorisation where urban governance primarily intervene on urban processes using discursive systems, especially policy, that urban planning primarily intervene using institutional systems and that urban design primarily intervene through the medium of spatial systems.
Fig. 2. A model for how different kinds of urban interventions use different intermediary systems (institutional systems etc.) to influence urban processes, thereby also defining core competences and professional identity to the different practices. The distinction between processes and products of intervention stresses the need for not only knowledge but the training of skills for the practices in the field.

Taken together, we start to see the contours of a model for urban development as a field of practice, but, and not least important, also as a field of knowledge (Fig. 2). Earlier we stressed the need to deepen and develop our understanding and knowledge of urban processes as self-organising systems. With the emerging model, what becomes apparent is how this is not sufficient in itself. What is also necessary is to develop knowledge on the relation between such urban processes and the different types of media used in urban interventions, something we have spoken of as the mastering of ones professional media. This is, furthermore, exactly the difference between the kind of knowledge necessary for the training of professional practitioners from the kind of knowledge developed in a more academic study of urban processes in themselves.

The reason for stressing this difference is not to imply any derogative meaning in the word academic, but the fact that it is very easy to confuse different forms of knowledge. Often these different forms are talked about as a distinction between theoretical and practical knowledge. This is a simplistic distinction that more often than not confuses rather than clarifies. In this case it opens for the obvious risk, on the one hand, to not develop effective translations of theoretical knowledge into practical knowledge, that is, one runs the risk of thinking that theoretical knowledge is something that can be put directly into action. On the other hand, one runs the risk of not investigating the theoretical foundations of the particular practical knowledge in question, because no such foundation is expected, that is, the belief that practical knowledge works only from experience and never from principle.
Both these mistakes are exactly what can be found behind many of the planning mistakes of the 20th century. In short, there is no doubt that there is something that with good reason could be called theoretical knowledge and something that could be called practical knowledge, but their internal relation is far from as simple as it first might seem. We will therefore use the more straightforward concepts of knowledge and skills here, fundamental for any practical training, adding the comment that any skill has its theory, explicit or not, and that any knowledge needs to be translated into practice to be relevant for the advancement of skills.

With this as a background, our model help us see how we, on the one hand, need proper knowledge on cities as self-organising systems, such as social networks, economic markets and ecological systems, that help us understand the inner logic of their functioning. To stop here would be to define an, in the best sense of the word, academic endeavour; it would help us understand urban processes better and help us develop knowledge and theories about them and their interaction. But it would not suffice to inform professional practice in the field. We therefore, on the other hand, also need proper knowledge on the inner logic of the systems we use as media in different professional practices, such as discursive, institutional and spatial systems, and, more precisely, their effects on different urban processes. If we earlier stressed the neglect and even arrogance present in the field when it comes to the development of proper knowledge on cities as the complex, self-organising systems they typically are, we can actually speak of an even greater neglect when it comes to knowledge on these intermediary systems used in professional practice.

While the arrogance in the first case comes from trusting too simplistic models of the workings of such urban processes and, above all, the inability to analyse the interplay between such systems, the arrogance in the latter case come from the belief that such knowledge is inherent or self-evident. Expressed bluntly, the belief has too often been that if we want to stop certain urban processes, why do we not just write a policy that denounces it, install a law that prohibits it or build a wall that stops it. It has all seemed to already be there, inherent in the practical knowledge of the urban policy-maker, planner or designer. Experience has told us differently, it is exactly such policies, laws and walls that have proved inept or misfired too many times. What is necessary is a similar proper academic study of these systems in the same manner as the study of urban processes, and, above all, the study of the interplay between these mediating systems and different urban processes, as a means to develop the tools to successfully intervene in them.

5. Program development: an out-line of tracks and curriculum in the MSc SUPD

5.1 The types of courses necessary for the MSc-program SUPD

In the section above we have identified the knowledge, meaning theoretical knowledge, necessary for successful intervention in the field, that is, a potential research program for the field, something that will be expanded elsewhere. But it does not yet include the necessary training to develop the skills, or practical knowledge, necessary for successful
intervention. This is typically not something developed in research, even though we today see many endeavours to develop different forms of research through practice, but is necessary to develop through exercise. Taken together, we can start to see the contours of a curriculum for the education and training of different professional practices in the field. On the one hand, we see the need for theoretical courses on both different types of urban processes, such as social networks, economic markets and ecological systems, and, on the other hand, theoretical courses on intermediary systems typical for different practices, such as discursive, institutional and spatial systems and their interplay with such systems. In relation to this, it seems reasonable to draw the conclusion that the first type of theoretical courses, in principle, could be shared by students in the training for different professions, while the second type of theoretical courses should be specific to different professional trainings.

While this would represent the knowledge or theoretical input in these programs, we also see the necessity to develop courses where the students are trained in the particular skills, or practical knowledge, characteristic for their profession. This is typically done in life like project based courses, where one is trained in the intervention in different urban processes using the media particular to ones profession. This is about skill and know-how, which demands practice and therefore a very different type of course design than the theoretical. Since such training need to be specifically designed for the development of the skills particular to different professions, it is easy to see how such life like project based courses need to be specific for the different practices. At the same time, they could be designed in such away that different practices were given different exercises critical for their particular professional training but relating to the same project, so that such a course could open for the parallel participation of students from different professional training programs. That is, such a life like course could include both elements of particular training for the individual professions but also elements where cooperation between different professions was the focus, thus enhancing the realism of the course.

<table>
<thead>
<tr>
<th>Track</th>
<th>1st term</th>
<th>2nd term</th>
<th>3rd term</th>
<th>4th term</th>
<th>Degree Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Planning and Design (UPD)</td>
<td>Trackspecific Project Course</td>
<td>Trackspecific Project Course</td>
<td>Shared Project Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Planning and Governance (UPG)</td>
<td>Trackspecific Project Course</td>
<td>Trackspecific Project Course</td>
<td>Shared Project Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Strategies in Planning (EPS)</td>
<td>Trackspecific Project Course</td>
<td>Trackspecific Project Course</td>
<td>Shared Project Course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Fig 3. Structural curriculum for the MSc-program SUPD*
Above we have been sorting courses very strictly into different categories to make a point. In reality this can be inhibiting to innovation in course design and other pedagogic needs. The idea is of course not to introduce some sort of strict course taxonomy, but rather do identify typical course elements that have different relevance for the training in different practices. Apart from everything else, there are strong arguments for effective courses, also in a more economic sense. Therefore, this identification of different types of courses can serve as a frame for the development of real courses, where different units within the courses, or in other cases the whole course, actually could be shared by two or three of the tracks in the program (Fig. 3). What also can become clear is that in certain cases this can also include pedagogic efficiency.

5.2 The professional identity of the three tracks within the MSc-program SUPD

The discussion above also creates a platform from which to define and design the three different tracks within the program to best support the training of three different and independent but interconnected professions with strong knowledge profiles and identities. We have then stressed the need to define and formulate the practical knowledge in the different professions. The reason for this is the fact that the training of skills is an enormous effort, both for the student and the educator. But maybe more importantly, it can also be argued that skills and the mastering of particular media, that is, the immediate handicraft that the student will be employing in future practice, in a most immediate way corresponds to a personal disposition and that a good match here is essential for a successful and satisfying professional career and, in extension, a successful MSc-program.

From the discussion above, we can then clearly distinguish three typical forms of intervention in urban processes, characterised by the media used in such intervention: urban governance, urban planning and urban design, where urban governance is characterised by its use of discursive systems, especially policy, but also including institutional systems, when intervening in urban processes, urban planning by its use of institutional systems including the institutionalisation of technology in the form of infrastructure and, finally, urban design by the use of spatial systems, including infrastructure, keeping in mind the need to not draw too neat boundaries around these practices and their media.

5.3 Track 1: Urban Planning and Design (UPD)

This could lead to the conclusion that the three tracks should represent exactly these three forms of intervention. Experience from the development of the earlier mentioned MSc-program UPD informs us differently. In short, such a division would prove too narrow to reflect contemporary planning and design tasks. Not least important here is the divergence within urban planning into one more spatially based and product oriented strand, and one more institutionally based and process oriented. The UPD-program was exactly designed to encompass not only urban design but also large parts
of this more physical dimension of urban planning, that is, the strategic large scale spatial development of cities, hence the name Urban Planning and Design.

It was argued that what this extended or joint field had in common was exactly that it represented, or rather, was in need of, a practice highly qualified in using space as a medium of intervention, albeit space on different scales. While this, on the one hand, could be said to represent a new interpretation of traditional blue print planning, where such planning was set in a wider context of discursive theory, it, on the other hand, by necessity also included knowledge and training in institutional interventions. In particular the translation of spatial interventions into institutional form, for example, detailed plans and certain types of policy documents. In summary, the UPD program came to encompass the training of a professional practice defined by the use of spatial systems as medium, but was from this core extended to also include dimensions of infrastructural and institutional systems, where these were closely related to spatial interventions.

5.4 Track 2: Urban Planning and Governance (UPG)

Experience from this program could therefore be useful in the development and design of the other two tracks. In congruence with the discussion on the UPD track above it seems most reasonable to let Urban and Regional Planning (URP) develop into a track that focuses on the more institutionally based and process oriented strand in urban planning. Drawing from our long discussion above, the possible analogies between UPD and URP seem many and in support of this. Where UPD represents a field in need of expertise in the planning and design of spatial systems as a medium for intervention in urban processes, URP seem to represent a field in need of expertise in planning and governance of institutional systems for the same ends. This would also be an argument to, just as in the case of UPD, stress the means of intervention rather than the scale of intervention and therefore ground for a change of name of the track to Urban Planning and Governance (UPG).

Just as in the case of UPD, there is reason to extend this field, both towards spatial interventions, especially infrastructural systems but also land use distribution, and discursive systems, especially policy. At the same time, there is reason to also stress some of the dissimilarities between the two fields the tracks represent. Most important here is the importance laid upon process in the field represented by the UPG track, that is not found to the same degree in the UPD field. What is meant with process here is the planning process, that is, the general governance process in urban development as well as the more concrete management of individual development projects. It is here that the knowledge of institutional systems become fundamental, both as a system to use and navigate within in such endeavours, but also as a system that can be designed to support particular needs and objectives.

Similar to the UPD-field, the primary medium or core object of knowledge in the UPG-field, that is, spatial systems in the UPD case and institutional systems in the UPG case, have both a process and product dimension to it. There is a process behind the
development of spatial interventions just as there is a process behind institutional interventions, but among the professional practitioners in the two cases, often identified as architects and planners, this is generally more recognised in the case of institutional interventions. It is somehow more obvious that an institutional system need a process to come alive than a spatial system, where such processes, in a most problematic way, often are read into the spatial system itself. The process in spatial interventions is either understood as the design process, that is, the process where the individual “architect”, or her team, develop a design for a spatial intervention, or the planning process, that is, the wider process of urban development, comprising the navigation through an institutional system, for example following the by law stipulated process of public documents, hearings and decisions, where the design process and its product is but a part. Therefore, again using the terms foreground and background, the process tend to be background in the UPD-field while it constitutes the very core and foreground in the UPG-field.

On the other hand, there is also a product dimension to institutional systems just as there is one for spatial systems and in this case this is generally more acknowledged for spatial systems than institutional. That there is an intentional design of spatial systems, as a means to influence and support urban processes, which aims at a concrete product, is in most cases obvious and undisputed. That the same often is true also for institutional systems is far less recognised. While this upon reflection is obvious, our legal system or our systems of public administration is, at least by the general public, far less seen as the result of an intentional design. While the concept of institutional design is fundamental in political science it is also widely debated and what exactly is meant by this would need extensive development to make it justice. Here it suffice to say that some kind of intentional structuring of institutions is necessary in any developed society and therefore also principal development of knowledge on the performance of different forms of institutions and their interaction in institutional systems. Therefore, there is reason in the context of the field represented by UPG, to also stress the need to discuss institutional systems as products and the possibility to structure and shape them, and not only as given landscapes for processes.

In summary, it is proposed that the UPG program should encompass the training of a professional practice defined by the use of institutional systems as medium, but from this core also extend its field of practice to include spatial interventions, especially infrastructure as a kind of institutionalisation of technology and discursive systems, especially policy, as a kind of institutionalisation of discourse, stressing the need to acknowledge both the process and product dimension of all of these.

5.5 Track 3: Environmental Strategies and Planning (ESP)

The third track Environment and Planning (EP), finally, does not at first sight fit as neatly into the model sketched above. This is so since it is clearly related to the concept of sustainability in the name of the program rather than the concepts of planning and design. While all tracks as well as more or less all practice in the field today need to be concerned with the concept and practice of sustainability and most knowledge
development in the field in one way or another is related to sustainability, if not grounded in it, the importance the issue has taken in contemporary social debate and especially the field or urban development, asks for particular treatment, not only in academic knowledge development but in professional education as well. This is the topic or theme that more than any leaves professionals in the field of today with a feeling of inadequacy. Special competence concerning sustainability is today therefore asked for from the whole field, from architectural and planning consultants over developers and real estate companies to public authorities and agencies. It is this market of new knowledge and professional competence the last track is catering for.

At the same time it has a most important complementary role to the other tracks in developing expertise and credibility when it comes to sustainable urban development even though this is a ubiquitous concept also in the other tracks. There is therefore great potential for the expertise found in the faculty of this track to be most attractive also in the other tracks, something clearly manifested in the introductory course in the program, shared by all tracks but coordinated by faculty in the EP-program.

At the same time, what has been stressed over and over again above is the need to move beyond the study and knowledge development of urban systems, be they sustainable or not, and also develop the media with which we can successfully intervene in these systems, that is, develop the tools for competent professional practice in the field. Put differently, acknowledging the fact that we talk about a MSc at a polytechnic university rather than an academic university, and the inherent need that follows from that to not only understand urban systems, but also change them, something we have spend so much time discussing for the other tracks, but something that also needs to be reflected in this third track. While we have covered the broader forms of intervention, governance, planning and design, as well as their specific media, extensively above, and also found an abode for them in the earlier discussed tracks, we would like to propose a new and more specific form of intervention typical for this track, that is, urban environmental strategies.