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Preface

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City of the Future Graduation Lab

Experiences in Multidisciplinary Education

Editors

Roberto Cavallo

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Marcelo Carreiro Matias

Mesut Ulkü

Sonja Drašković

Colophon

City of the Future Graduation Lab: Experiences in Multidisciplinary Education

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As part of their graduation projects, some parts of the texts written by the former students can be found in the repository of the TU Delft.

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How to prepare our students for their future work? Where climate change, biodiversity and inclusiveness are key challenges. Where they will be working on complex tasks, such as the need for additional housing, liveable cities and sustainable transport.

These societal challenges call for integrated approaches, where people from different organisations and with different disciplines work together. That means people from different backgrounds, ways of working, and each with their own language. That is both challenging, and inspiring. This requires professionals to bring in their own expertise and interest, have an open attitude and be able to work together. That they look to problems and solutions beyond their usual scope of work. Professionals with T-shape skills: the vertical the depth of their knowledge, which must be kept up to date, the horizontal their ability to collaborate, which is increasingly challenged. The emphases may be different for each of us, on a scale from specialist to generalist, but we all need the skill to work together.

In our education at Delft University of Technology we try to facilitate these two skills, on the one hand by disciplinary courses, on the other hand by a multidisciplinary approach and teamwork. To be honest, our institution is not completely prepared for this second type of 'problem-based' education. And we recognise that we are not the only one. Often our work is driven from silos that do not necessarily strive for integrated approaches, to put it mildly.

In that respect, we are proud of the Cross Domain City of the Future Graduation Lab, where students of different master tracks study together in their own graduation studio. In which they try to really understand current and future problems, oversee them and come up with inspiring, integrated solutions. The approach is multidisciplinary, innovative and can be visionary, as well as down to earth. Important in the

studio is the participation with practitioners. What is so nice to see, is that they inspire each other, and not only the students learn, also the practitioners.

What you hold in your hand or see on your screen, is a wonderful browsing book that you can pick up again and again for inspiration and insights. The core of the book are the designs with beautiful graphics, centred around the six themes: natural systems, economy, infrastructure and mobility, society, digitisation, and resources and circularity. When looking at each of the twenty designs, a word from each that caught my eye: combine, collaboration, resilient, interconnection, future scenarios, mixed-use, diversity, integrate, human needs, flexibility, impact, creating, connect, identities, interactive, inclusive, forged into, context, imagining, adaptable. I can also highly recommend the interviews, the introductions to the themes, the essays, and last but not least, the eight bullet points (also on the back). So many insights and perspectives. So much to see, read, think about, and reflect on your own work.

From the TU Delft DIMI (the Delft Deltas, Infrastructures & Mobility Initiative) we are honoured that we were one of the initiators of the design study Stad van de Toekomst/City of the Future, that served as an inspiration of this graduation studio, which we also sponsored. If you, as a student or professional, have become enthusiastic about our multidisciplinary approach, we look forward to getting into contact with you, and seeing how we can work together to make our built environment a pleasant place to live for everyone.

Prof.dr.ir. Marcel Hertogh

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The Cross Domain City of the Future Graduation Lab, situated in the Faculty of Architecture and the Built Environment at TU Delft, has been a pioneer in experimenting with a multidisciplinary approach to education on the built environment. Drawing upon this expertise over the past years, this book reflects on multidisciplinary in the built environment and its implementation in education on the built environment. How should one approach multidisciplinary in education and practice? What encompasses its core elements, benefits, and challenges?

By addressing these questions, the book aims to inform students and practitioners within the realm of the built environment by sharing insights from experiences in multidisciplinary education. It presents eight conclusions regarding the future of multidisciplinary education and, thereby, seeks to contribute to a more humane and sustainable future for cities:

- I Process is central to multidisciplinary collaboration. Negotiating positions, ensuring an environment of respect, balance and open-mindedness, and setting a common vocabulary.
- II Multidisciplinary can be a way to foster innovation. It triggers complementarity and confrontation. As with any innovation, there is potential for greater outcomes, but, at the same time, extra risks emerge. These need to be managed.
- III Multidisciplinary could be better integrated into organisational structures.
- IV Disciplinarity and multidisciplinary are in mutual coexistence. They are inseparable. They can complement and contradict each other.
- V Problem precedes solution, not the opposite. Framing the problem, or 'problematizing', is a considerable share of the actual solution. This is particularly applicable to multidisciplinary.
- VI Multidisciplinary is by nature composed of fluid boundaries. Navigating through an enormous diversity of perspectives requires agility, flexibility, independence, spirit of adventure and embracing uncertainty.
- VII Professionals should be trained as 'T-shape': grounded in their field while able to dialogue with other fields.
- VIII Both generalists and specialists are needed. Education should provide opportunities for both.

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