



**Erasmus Centre for Data Analytics**  
Hands-on preparation for a data-driven future

# Urban Digital Innovation Executive Leadership Programme

*Working towards the European Green Deal*

Partners



**Gemeente  
Rotterdam**



RSM *Erasmus* | Rotterdam School of Management  
Erasmus University



**TNO**  
innovation  
for life



**European  
Network of  
Living Labs**

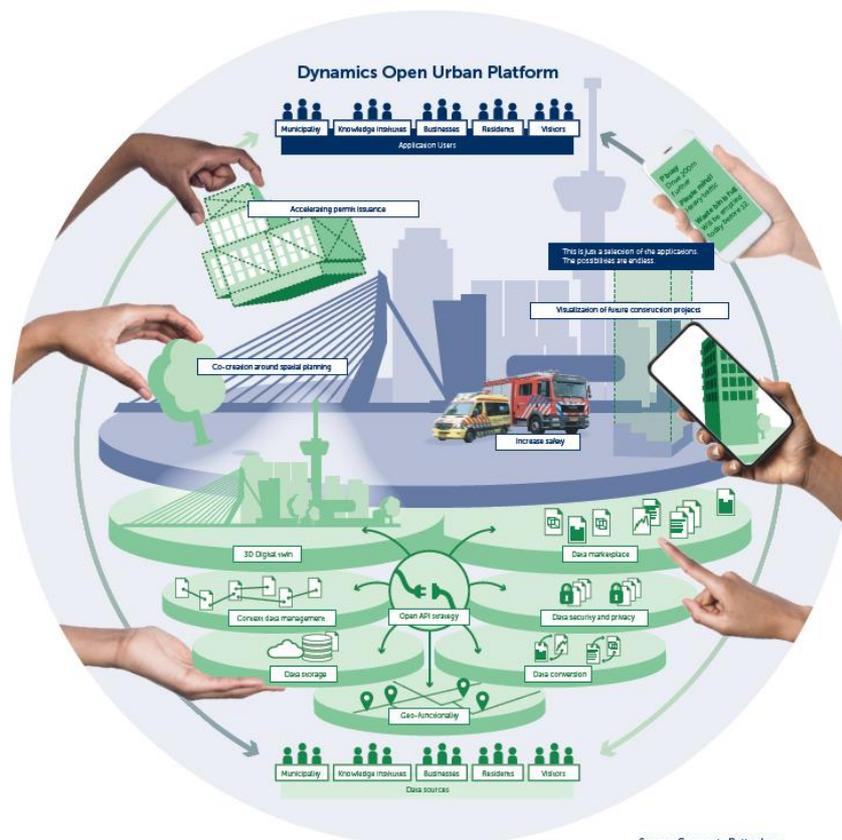


# 1. Introduction

Climate change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, the European Green Deal will transform the EU into a modern, resource-efficient, and competitive economy, ensuring: no net emissions of greenhouse gases by 2050, economic growth decoupled from resource use, no person and no place left behind. The European Commission adopted a set of proposals to make the EU's climate, energy, transport, and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. Cities will play an important role in realizing the ambitions of the European Green Deal. And for the green deal to success, cities need to change their innovation ecosystem, working in new agile ways with academia, start-ups, corporates and citizens, while realizing the potentials of using digital technologies, data platforms and Artificial Intelligence. At the same time cities need to remain critical about some of the challenges, such as ethics, inclusion and accountability of their digital innovations.



This Urban Innovation Executive Program provides an in-depth multidisciplinary orientation on the topic of Smart & Resilient Cities and Urban Communities. It frames the future of our cities within the context of the 4th Industrial Revolution. It introduces the building blocks for successful digitalization and innovation strategies for communities, cities and regions, such as agile governance, innovation for scale, citizen engagement, digital inclusion, agile regulations and ethical frameworks - and a touch of technology. The programme is powered by learnings and results from the EU funded [Ruggedised smart city project](#).



Source: Gemeente Rotterdam

Urban digital innovation ecosystem (source: Gemeente Rotterdam)

## 2. Learning Objectives of the programme

The programme has seven key learning objectives:

1. Provide a comprehensive framework in response to the question: how to prepare for and facilitate resilient, inclusive, successful cities within the context of digitalization and the digitalization driven 4th Industrial Revolution towards the green digital deal.
2. Understand and apply critical building blocks of a comprehensive digitalization strategy for a city or community to include agile governance, ethics, trust building, digital fundamentals, and inclusive design approaches.
3. Provide holistic multidisciplinary perspective on urban (data driven) innovation
4. Facilitate cross department team building and alignment
5. Optimize learning & organizational impact by hands-on / applied approach
6. Offer opportunity to deepen expertise on specific topics or in specific application domains in follow up electives.
7. Develop a critical perspective on topics such as ethics, inclusion, accountability- and vendor lock-in.

## 3. Unique elements of the programme

The programme is developed and offered by experts on digitalization and urban digital innovation. It offers the following unique elements:

1. Holistic set-up with wide range of topics that will be covered
2. International renowned guest speakers
3. It plays a key role in the transformation of cities' ecosystems towards the green deal ambitions, enabled by agile and digital innovation
4. Participants work in small teams and apply learnings to their own urban innovation challenge
5. It inspires participants through peer-learning and an outside-in perspective.
6. Due to the setup the programme is also interesting for international audience
7. Site visits and experience in Rotterdam
8. Optional coaching trajectory after the core programme.



## 4. Who should attend?

Innovation teams with the following profile:

- Leaders and practitioners at municipalities and regional authorities, including those working in areas of sustainability, energy, digital and data, innovation.
- Leaders and practitioners at semi-governmental organizations (e.g., utilities, transport operators)
- Leaders and practitioners at Companies that stand to contribute to urban innovation agendas or expect to make their inroads into this arena in the foreseeable future

## 5. Maturity measurement

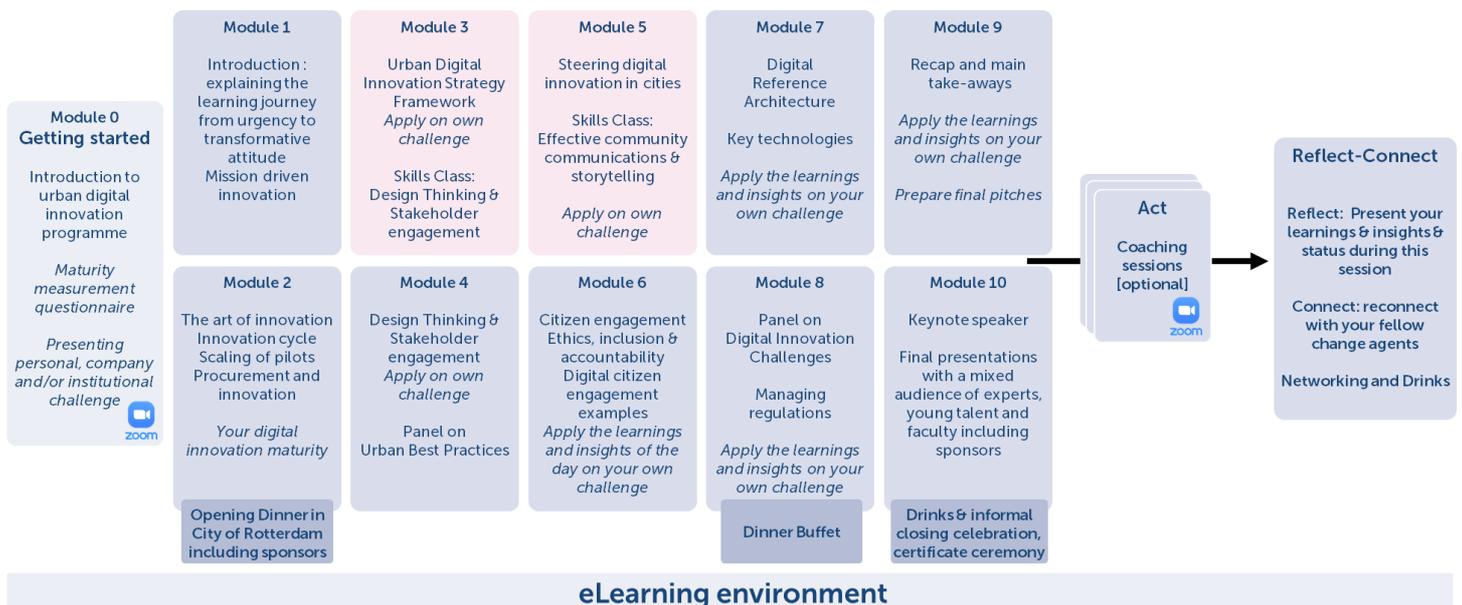
Before the programme every participating team will be asked to fill out a questionnaire. The questionnaire will assess the maturity with regards to **technology/digital capabilities readiness** on the one hand, and the **innovation capacity/organizational readiness** on the other.

## 6. Action learning project

Participants bring their own ambitious urban digital innovation challenge or opportunity to work on during the programme. Examples of such projects can range from realizing smart energy applications, Citizen engagement tools for green digital deal, optimizing potential of renewable energy, Data driven optimization of smart buildings, Optimizing door to door mobility. The action learning projects throughout the week build up to make the Strategic Impact. If participants are not from the same organisation, then they are matched with other participants working on a similar challenge during an intake session. Throughout the course week there are several exercises and reflection sessions where participants receive coaching and peer feedback on their urban innovation challenge. At the end of the week participants create a short pitch presentation which summarized their main learnings of the week and how they will apply these to their urban innovation challenge.

## 7. Programme Design

The pilot edition of this programme starts on Monday March 27, 2023<sup>1</sup>. This edition will be in person on **campus of Erasmus University Rotterdam**. The programme features five lunches, a Lego workshop and two dinner sessions. Following the core programme week, participants can opt to join a series of **optional coaching sessions** guided by one of the partners in the programme to help them in their urban innovation challenge. After about six months a get back session of half a day will be organized, where participants update each other on the progress of their urban digital innovation challenge. The coaching sessions and half-day get-back session will be scheduled in consultation with programme participants.

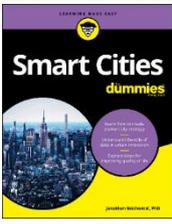


<sup>1</sup> Depending on number of registrations (minimal class size 18 participants)

**The detailed schedule- (subject to modifications)**

Module	Topic	Subtopics	Date & Time
0		Introduction to urban innovation Intake questionnaire / assessment [current position and future ambition]	
1	Welcome Introduction	Introduction urban innovation & programme	27-3-2023 900 – 930
		Introduction SDGs in relation to/Green Digital Deal Mission driven innovation (moon-shot thinking)	930 – 1015
		Break	1015-1030
1	Get to know each other	<ul style="list-style-type: none"> <li>• Serious Lego Workshop</li> <li>• Introduce your personal project – innovation challenge via Lego</li> </ul>	1030 – 1230
		Lunch	1230-1330
2	Building blocks of innovation	<u>Skills class: The art of innovation</u> <ul style="list-style-type: none"> <li>• The innovation factory, enablers and blockers</li> <li>• The Innovation cycle (from idea--&gt; PoC --&gt; PoV --&gt; Scale up)</li> <li>• Creating a portfolio of innovation initiatives</li> <li>• How do you scale?</li> <li>• How do you avoid death by pilots?</li> <li>• Where to involve certain stakeholders?</li> <li>• Open innovation &amp; procurement</li> </ul>	13.30-15.45
		Break	1545-1600
2	Digital Innovation Maturity per team or city	Maturity measurement of participating cities and teams Implications for personal project	16.00-1730
		travel to dinner location	1730-1800
		Rotterdam Urban Innovation Dinner with visit to <b>Rotterdam Stadsbrouwerij (incl tour)</b>	1800-2130
	Development of cities in time and implications for urban innovation strategies	Perspective on urbanism Framework on urban innovation strategies Innovating within complexities of cities Importance of data sovereignty Planning urban digital innovation in time  Action learning project exercise – structure your project towards the framework and order the aspects	28-3-2023 900-1045
		Break	1045-1100
3	Design thinking	<i>Leadership Skills Class</i> on stakeholder engagement and design thinking (part 1)	11.00-1230
		Lunch	1230-1330
4	Design thinking	<i>Leadership Skills Class</i> on stakeholder engagement and design thinking (part 2) Action learning project reflection with design thinking perspective	1330-1500
		Break	1500-1515
4	Urban Innovation best practices	Urban innovation towards green digital deal: experiences from European Living Lab and digitalization projects (incl learnings from Ruggedised): <ul style="list-style-type: none"> <li>* Digital twinning</li> <li>* Smart energy grids &amp; smart heating networks</li> <li>* Smart electric mobility &amp; smart charging</li> </ul>	1515-1715

Module	Topic	Subtopics	Date & Time
		* Circular economy powered by digital Panel / reflection (takeaways, learnings, what can you apply from your project & reflection)	
5	Leadership strategies towards (digital) innovation in cities	How to combine new policies, new behavioural patterns of interest groups and new business models of involved companies and organisations New business models and financing	29-3-2023 900-1015
		Break	1015-1030
5	Communications & storytelling	<u>Skills Class: Effective community communications &amp; storytelling</u> <ul style="list-style-type: none"> <li>construct effective and impactful stories that deliver messages that stick</li> <li>engage and build trust with any audience</li> <li>simplify complex ideas and put them in a memorable and familiar context</li> <li>ensure your meaning is understood and felt, every time</li> </ul> Discussion & personal exercise	1030-1230
		Lunch	1230-1330
6	Citizen engagement	Backgrounder - introduction Agile Governance & Citizen engagement <ul style="list-style-type: none"> <li>Citizen engagement strategies: why, how and how to act upon (user insights/design thinking)</li> <li>Linking design thinking to citizen engagement</li> <li>How to act upon citizen engagement</li> </ul>	1330-15.00
		break	1500-1515
		<ul style="list-style-type: none"> <li>How can digital support citizen engagement, examples e.g. gamification, use of immersive technologies (AR/VR)</li> <li>Ethics, inclusion &amp; accountability</li> </ul>	1515-1630
6		Action learning project citizen engagement and by extension, public conflict – in class discussion – discuss critical incident as example	1630-1715
7	Digital Fundamentals	Digital Reference Architecture Common dataspace and role of interoperability Role of open data standards	30-3-2023 900-1015
		Break	1015-1030
		Tour de Horizon of relevant technologies and <u>their relevance towards digital green deal</u> , including data, (IoT) Infrastructure & cloud, Urban Data platforms, Digital twinning, Artificial Intelligence for green deal use cases, Immersive technologies (AR/VR/Metaverse), Blockchain and geo-spatial analytics.	1030-1145
		<i>Action learning project exercise: technologies relevance to your case</i>	1145-1230
		Lunch	1230-1330
8	Digital Innovation Challenges	Digital challenges / dealing with critical incidents Trust building & Data sharing Cybersecurity Data governance/quality Citizens as consumers: <ul style="list-style-type: none"> <li>- Adoption of technologies</li> <li>- Ethics, inclusion &amp; accountability</li> </ul>	1330-1500

Module	Topic	Subtopics	Date & Time
		- Push back with citizen concerns	
		break	1500-1515
		Managing regulations in the context of digital innovation and green deal ambitions European Data Strategy EU AI Pact	1515-1615
		Action learning project exercise: what could possibly go wrong?	1615-1715
		Dinner buffet on campus EUR	1715-2000
9	Conclusion	Recap of the programme and main take-aways Developing your action plan	31-3-2023 9.00-1015
		Break	1015-1030
		Action learning project – prepare final pitch in teams	1030-1230
		Lunch	1230-1330
10	Keynote	  <p>Key Note Jonathan Reichental: Smart cities for Dummies</p>	1330-1500
		Student Panel/Reflection	
		Break	1500-1530
	Final group Presentations	Final presentations with a mixed audience of experts, young talent and faculty including sponsors (15-20 minutes) per group, feedback from experts	1530-1715
	Closure	Closure of programme Informal closing drinks with Handout <b>certificates</b>	1715-1800

## 8. Key Faculty and Speakers



Bas Boorsma is a leading urban innovation and digitalization specialist & executive with over 20 years of experience in the 'smart city' space. He serves as Professor of Practice at the Thunderbird School of Global Management at Arizona State University. He also practices what he preaches: Bas serves as the Chief Digital Officer (CDO) to the City of Rotterdam. Bas is also Vice President EMEA of the Cities Today Institute, and also serves as Member of the Board, at the Smart City Association Italy (TSCAI). Bas is the author of the well acclaimed book "A New Digital Deal".



Liesbet van Zoonen is professor of Sociology and dean of the Erasmus Graduate School of Social Sciences and the Humanities at Erasmus University Rotterdam. Her research covers a wide range of issues in the social sciences and humanities, but all concern the question whether and how digital and popular culture is a relevant resource for civic understanding and social participation. Her work currently is focused on civic engagement and governance in smart cities. She leads the Leiden-Delft-Erasmus Centre for BOLD Cities



Rob van Tulder is a professor of International Business-Society Management at Rotterdam School of Management, Erasmus University (RSM). Professor van Tulder has published extensively on topics of multinational enterprise strategies, high-tech industries, corporate social responsibility, issues management, skills, network strategies, smaller industrial countries (welfare states) and European Community/Union policies. He has received numerous accolades for his intellectual and societal contributions. His latest books include 'Getting all the motives Right' (on driving international corporate responsibility to higher levels), 'Managing the transition to a sustainable enterprise' (also in Dutch), 'Business and the Sustainable Development Goals' (RSM series publication), "Corporate Responsibilities in Turbulent Times" (also in Chinese). He is founder and academic director of The Partnerships Resource Centre, an expert centre bringing together leading NGOs, firms and governments in the study and management of cross-sector partnerships for the social good. He supports the creation of other expert centres around the world that try to help companies improve their sustainability strategy together with other societal stakeholders. His recent initiative has been the creation – together with the University of the Philippines – of an expert centre around 'inclusive value chains' (the C4C centre in Manila). Professor van Tulder consults for international organisations, ministries, and companies. He teaches executive courses for managers and academics on international strategic management and has been a visiting professor at several international universities.



Vareska van de Vrande is Professor of Collaborative Innovation and Business Venturing at Rotterdam School of Management (RSM). Her expertise focuses on the areas of corporate venturing and collaborative innovation, including external technology sourcing, corporate venture capital investments, strategic alliances, and corporate-start-up collaboration. Other research interests include (corporate) entrepreneurship, patents, and venture capital. At RSM, Vareska teaches courses and modules in Strategic Management and Corporate Venturing at the graduate and post-experience level. In addition, Vareska is the Academic Lead of Erasmus Enterprise B.V. Vareska van de Vrande has been a certified facilitator in the LEGO® SERIOUS PLAY® methodology since 2014.



Jasmien Khattab is an assistant professor of Innovation Management at Rotterdam School of Management, Erasmus University, where she also obtained her Ph.D. in Organizational Behavior. In her research, she investigates innovative ways organizations can reduce structural inequality, including topics such as stereotypes & leadership, social networks & diversity, and diversity & inclusion practices. She is an expert in design thinking. Her work has been published in *Academy of Management Annals* and in *Academy of Management Review*. Prior to joining academia, Jasmien Khattab worked as a policy officer for the Permanent Representation of the Netherlands to the E.U. and the Dutch Ministry of Security and Justice.



Haydee Sheombar is an experienced international business consultant, academic researcher and speaker who works with leaders in both the public and private sector. She has advised (the board room) on various topics, including digital transformation, strategy, organisational & process redesign, and customer experience. Helping managers, leaders and policy makers to implement change. With a MSc degree in Electrical Engineering and a PhD in Economics she has mostly worked at the intersection of information technology and business/society. She has over 20 years international experience at PWC and IBM as a Consultant, Smarter Cities Director, Client Executive, and Business Development Executive. To gain a profound understanding of the exponential change of today's Digital Age, Haydee researches how digital technologies (e.g. AI, IoT, platforms) shape business, society, our lives and our behaviour. She has a research affiliation with the Erasmus University Rotterdam and the Erasmus Centre for Data Analytics. In 2015 Haydee founded Kankan\*Tree BV, Digital Engagement research led Consulting firm committed to "transforming organisations and the way they engage citizens, customers and employees".



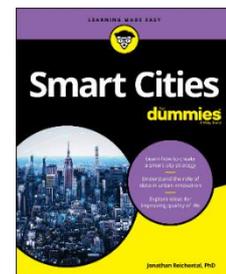
Marcel van Oosterhout works as associate executive director for the Erasmus Centre for Data Analytics and as business director for the Erasmus Centre for Future Energy Business. Marcel likes to initiate and develop innovative ideas and projects on the edge of science and practice, which combine people, technology, knowledge, and innovation. Linking the academic world with the business world and creating societal impact gives him a lot of energy. Marcel holds a PhD from Rotterdam School of Management, Erasmus University. During his PhD he analysed how organizations can become more agile and how Information Technology can support organizational agility. Marcel has extensive experience in developing and leading innovative research projects and programs (government funded, EU programs and company contract research projects). His areas of expertise and interest include smart cities, urban data platforms, smart sustainable energy and smart logistics.



Ferdinand Jaspers is programme director at the Erasmus Centre for Entrepreneurship. His teaching and consultancy activities focus on innovation leadership. Based on his expertise at the intersection of strategy, innovation, and entrepreneurship, he teaches courses and provides masterclasses, workshops and boot camps on corporate entrepreneurship, innovation excellence, and entrepreneurial culture. With a rigorous academic perspective, Ferdinand draws upon and helps you move beyond approaches such as lean start-up, design thinking, business modelling, and effectuation. Together with experts from DSM and ING, Ferdinand founded the ECE Innovation Leadership executive programme. He holds a PhD from RSM.



Dr. Jonathan Reichental is the founder of Human Future, a global business and technology advisory, investment, and education firm. Previous roles have included senior software engineering manager, director of technology innovation, and he has served as chief information officer at both O'Reilly Media and the City of Palo Alto, California. In 2013 he was recognized as one of the 25 doers, dreamers, and drivers in government in America. In 2016, he was named a top influential CIO in the United States and in 2017, he was named one of the top 100 CIOs in the world. He has also won a best CIO in Silicon Valley award and a national IT leadership prize. Reichental is a recognized global thought leader on several emerging trends including urban innovation, smart cities, sustainability, blockchain technology, data governance, the fourth industrial revolution, and digital transformation. He holds several degrees including a Ph.D. in Information Systems. He is an adjunct professor in the School of Management at the University of San Francisco and instructs at several other universities. Reichental regularly creates online video courses for LinkedIn Learning. He is a popular global keynote speaker and writer. He has written three books on the future of cities: Smart Cities for Dummies, Exploring Smart Cities Activity Book for Kids, and Exploring Cities Bedtime Rhymes.



## 9. Programme Fees

The programme fee for this five day programme is **€ 4.995,- euro** per person (free of VAT). This fee includes access to the online learning environment and materials, five lunches, 2 dinner sessions, a serious Lego set, two books (Smart Cities for Dummies and A new digital deal), access to two peer-coaching online moderated sessions and access to the get back session. An additional fee applies for teams or individuals that want to take part in an optional more in-depth coaching programme with one of the partners. This depends on the needs of the team and the intensity of the required coaching.

## 10. Programme partnership & contributions

In the programme we combine research- and practice-based insights from leading Professors with best practices and learnings from urban professionals and thought leaders, leading tech companies and start-ups. The programme is a collaborative effort among the following partners:

### Partners



The programme development for this educational programme has received funding from the EU funded Ruggedised project. The Ruggedised project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 731198. The sole responsibility for the content of this document lies with the Ruggedised project and does not necessarily reflect the opinion of the European Union.

## Information and registration

Information on the programme including new dates

<https://ecda.eur.nl/education/urban-innovation-executive-leadership-programme/>



### Contact person

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