Smart City Smart Strategy Roland Berger

Arbitration in Context Series Volume 1 There is probably no area of activity more in need of reliable dispute resolution procedures than construction projects, especially if more than one jurisdiction is involved. The third edition of this eminently practical guide greatly facilitates the process for all parties concerned. The text, updated to include the latest edition of arbitral rules and introducing the Prague Rules, considers the full range of available dispute resolution methods, including mediation, conciliation and determination by dispute review boards, before focusing specifically on arbitration. The book then looks in detail at all aspects of arbitration, from commencement of proceedings, selection of the tribunal, through preparation and collection of the evidence necessary in complex construction cases, to common procedural issues, the conduct of the hearing, the effect of the award, challenges to it and its enforcement. The third edition addresses fresh thinking on MedArb, guidance on preparation for and conduct of virtual hearings in the wake of COVID-19, technological advances to assist collection and presentation of evidence, litigation funding and includes a new chapter on the role of arbitration in tender disputes. Specific valuable features include the following: guidance on the drafting of dispute resolution provisions designed to minimise disputes and facilitate their swift resolution; flowcharts to illustrate the stages in dispute procedures and arbitration; a comparison between common law and civil law approaches to key concepts; details of the key features of a construction contract, common standard forms and procurement structures; expert guidance on effective contract administration; step-by-step advice on the conduct of a construction arbitration to maximise efficiency; and coverage of particular issues thrown up by complex construction disputes which differentiate them from other commercial disputes, with guidelines on how to approach such issues in the presentation before a tribunal. As an easy-to-use resource for both general counsel and the lawyers in private practice, this book has no peers. It has proved to be of particular value to commercial contract negotiators and corporate counsel who may have many years of experience but have not had to live through a construction dispute or manage a construction contract during the life of a project. Lawyers in private practice embarking on a construction dispute for the first time will also find this book of value, as will students of dispute resolution.
Cities for Smart Environmental and Energy Futures presents works written by eminent international experts from a variety of disciplines including architecture, engineering and related fields. Due to the ever-increasing focus on sustainable technologies, alternative energy sources, and global social and urban issues, interest in the energy systems for cities of the future has grown in a wealth of disciplines. Some of the special features of this book include new findings on the city of the future from the macro to the micro level. These range from urban sustainability to indoor urbanism, and from strategies for cities and global climate change to material properties. The book is intended for graduate students and researchers active in architecture, engineering, the social and computational sciences, building physics and related fields.
This report studies green growth trends, challenges and opportunities in the City of Kitakyushu, Japan.
Dieses Buch zeigt Marketern, welche neuen Chancen sich durch die Digitalisierung und die momentan entstehenden Smart Cities für das Marketing ergeben. Alexander Gutzmer fordert dazu auf, Marke, Stadt und Digitalisierung umfassend neu – und zusammen zu denken. Auf Basis eines innovativen Ansatzes und vieler Fallbeispiele aus der Praxis entwirft er das Bild einer digital durchdrungenen Stadt, die Marketing-Entscheidern Antworten auf völlig neue Fragen abverlangt, wenn diese die neuen Chancen für Ihre Marken nutzen wollen. Für Marketing und Markenführung bringt die digitale Erschließung der Stadt zwei zentrale Herausforderungen mit sich: Wie kann der Informations-Reichtum des urbanen Raumes zu neuen, kreativen Markenansätzen inspirieren? Und wie wird dies die Idee der Marken-Positionierung und -Kommunikation insgesamt langfristig verändern? Der Autor liefert Ideen, wie der urbane Raum als Resonanzfläche in Kampagnen integriert werden kann. Treiber dieser neuen Marken-Inszenierung im (öffentlichen) Raum sind die Daten. Analyse und Management dieser Daten ermöglichen es, Marken in Städten kreativ zu inszenieren und mit dem städtischen Raum zu verweben. Das hat Konsequenzen: Die ästhetische Welt der klassischen Werbung kam bislang ohne raue Wirklichkeiten aus. Das geht heute nicht mehr. Die Welt der Daten ist Ästhetik-avers. Sie ist hart, rau, direkt, ehrlich. Wie die Stadt. Der AutorAlexander Gutzmer ist Professor für Kommunikation und Medien an der Quadriga University, Berlin, und Chefredakteur der Architekturzeitschrift Baumeister. Gutzmer ist Diplom-Betriebswirt und promovierter Kulturwissenschaftler.
This book constitutes the refereed proceedings of the 6th Conference on Electronic Governance and Open Society: Challenges in Eurasia, EGOSE 2019, held in St. Petersburg, Russia, in November 2019. The 32 revised full papers were carefully reviewed and selected from 82 submissions. The papers are organized in topical sections on smart city;digital government, society and economy; digital intelligence, data science and cybercrime; social networking and media.
In a fast moving world, businesses need to keep up with data analysis and pattern spotting to identify future opportunities. Anne Lise Kjaer presents a unique methodology for global trend spotting along with practical tools and approaches to help companies and organizations analyse market changes and determine the way ahead.
Nachhaltigkeit und Digitalisierung sind die zwei Megatrends des 21. Jahrhunderts. Der Sammelband gibt Antworten auf die Frage, inwiefern verschiedene digitale Technologien bei der Erreichung einer nachhaltigen Entwicklung im Sinne der Sustainable Development Goals helfen.
Wissen ist Macht und Zahlen lügen nicht: Statistik als Fake-News-Prävention Zu spröde, zu kompliziert, zu nerdig: Schon in der Schule wird vielen abgewöhnt, sich ernsthaft für Mathematik oder Statistik zu interessieren. Stattdessen gibt es Zahlen gegenüber ein gehöriges Misstrauen, das oft in der Aussage gipfelt: "Glaube keiner Statistik, die du nicht selbst gefälscht hast!". Ob Datenfehler oder bewusste Manipulation: Allzu leicht wird heute mit falschen Zahlen Stimmung gemacht. Klemens Himpele korrigiert mit seinem Sachbuch "Statistisch gesehen" auf höchst unterhaltsame Weise unser

Bild von Daten und Fakten: - Piefke und Ösis: Deutschland und Österreich im Zahlenvergleich – von Bevölkerungsentwicklung über Wirtschaft bis Wintersport - Der "Kreislauf des Lebens": Was verraten Statistiken über Geburt, Hochzeit, Scheidung und Tod wirklich? - Warum mit Daten sorgsam umgegangen werden muss: Statistik als wichtige Basis des demokratischen Diskurses - Mehr als Zahlenspiele: Welche kuriosen und überraschenden Geschichten Statistiken erzählen können - Selbst Fakten checken: Statistiken lesen lernen, um Deutungen überprüfen zu können Echte Zahlen statt halber Wahrheiten: was Statistiken über Deutschland und Österreich verraten Wussten Sie, dass die Lesefähigkeit mit der Schuhgröße steigt? Es gibt Daten, die das belegen! Im Alter von zwei Jahren sind die Füße klein und die Lesefähigkeit gering. Als Erwachsener, mit Schuhgröße 46, klappt das mit dem Lesen ausgezeichnet. Mit Beispielen wie diesem illustriert Klemens Himpele, dass eine schlichte Korrelation noch lange nicht auf einen kausalen Zusammenhang hinweisen muss. Der Autor studierte Volkswirtschaft und leitet die Magistratsabteilung Wirtschaft, Arbeit und Statistik der Stadt Wien. Es gelingt ihm, Zahlen und Daten mit Geschichten aus dem Leben eins werden zu lassen. Ein unverzichtbarer Buchtipp für alle, die Statistiken und Fakten verstehen und am demokratischen Diskurs teilnehmen wollen!

Wo steht die Entrepreneurship-Forschung aktuell und welchen Nutzen stiftet sie für die Gründungspraxis? Das Buch gibt einen repräsentativen Querschnitt durch das breite Spektrum des Entrepreneuerships und zeigt den aktuellen State-of-the-Art auf. Schwerpunktthemen sind: Entrepreneur-Persönlichkeit Unternehmerische Organisation Spezifische Erscheinungsformen des Entrepreneurships Systemische Betrachtung des Entrepreneurships Entrepreneurial Ecosystem Entrepreneurial Education Das Buchprojekt versteht sich als Beitrag zum Theorie-Praxis-Transfer und richtet sich neben Wissenschaftlern auch an Entrepreneure in der Praxis.

Highlights the challenges ahead for business managers and politcial leaders on the issues of green business and sustainability, with insights from experts in the key markets and regions

Untangling Smart Cities: From Utopian Dreams to Innovation Systems for a Technology-Enabled Urban Sustainability helps all key stakeholders understand the complex and often conflicting nature of smart city research, offering valuable insights for designing and implementing strategies to improve the smart city decision-making processes. The book drives the reader to a better theoretical and practical comprehension of smart city development, beginning with a thorough and systematic analysis of the research literature published to date. It addition, it provides an in-depth understanding of the entire smart city knowledge domain, revealing a deeply rooted division in its cognitive-epistemological structure as identified by bibliometric insights. Users will find a book that fills the knowledge gap between theory and practice using case study research and empirical evidence drawn from cities considered leaders in innovative smart city practices. Provides clarity on smart city concepts and strategies Presents a systematic literature analysis on the state-of-the-art of smart cities' research using bibliometrics combined with practical applications Offers a comprehensive and systematic analysis of smart cities research produced during its first three decades Generates a strong connection between theory and practice by providing the scientific knowledge necessary to approach the complex nature of smart cities Documents five main development pathways for smart cities development, serving the needs of city managers and policymakers with concrete advice and guidance

Gegenwärtig existieren zahlreiche Konzepte, Begriffe bzw. Label, die aktuelle Entwicklungen und Trends der Stadtentwicklung diagnostizieren. In diesem Handbuch werden die derzeit gängigen Stadtkonzepte systematisch expliziert und verständlich dargestellt. Das Handbuch gibt einen umfassenden Überblick über die aktuelle Diskussion zum Thema Stadt in der Wissenschaft, im Städtebau und in der Planung sowie in Wirtschaft und Politik.

The advent of connected, smart technologies for the built environment may promise a significant value that has to be reached to develop digital city models. At the international level, the role of digital twin is strictly related to massive amounts of data that need to be processed, which proposes several challenges in terms of digital technologies capability, computing, interoperability, simulation, calibration, and representation. In these terms, the development of 3D parametric models as digital twins to evaluate energy assessment of private and public buildings is considered one of the main challenges of the last years. The ability to gather, manage, and communicate contents related to energy saving in buildings for the development of smart cities must be considered a specificity in the age of connection to increase citizen awareness of these fields. The Handbook of Research on Developing Smart Cities Based on Digital Twins contains in-depth research focused on the description of methods, processes, and tools that can be adopted to achieve smart city goals. The book presents a valid medium for disseminating innovative data management methods related to smart city topics. While highlighting topics such as data visualization, a web-based ICT platform, and data-sharing methods, this book is ideally intended for researchers in the building industry, energy, and computer science fields; public administrators; building managers; and energy professionals along with practitioners, stakeholders, researchers, academicians, and students interested in the implementation of smart technologies for the built environment.

The book presents high-quality research papers presented at the 1st AUE International research conference, AUEIRC 2017, organized by the American University in the Emirates, held on November 15th-16th, 2017 in Dubai. The book is broadly divided into three sections: Media and Smart Cities, Creative Technologies and Innovation, and Security Risks and Strategic Challenges. The areas covered under these sections are cyber-psychology and digital forensics, cloud RAN architecture, networking functions virtualization, e-Governance and IoT semantic interoperability, ERP security, web-based application and problem-solving skills, smart technologies and advertising, smart technologies for smart cities, smart adaptable navigation systems, turbo codes for security key generation, technology advanced student learning and mobile devices, big data security and privacy, multi-channel buffer enabled technique, physiological signal acquisition in electro-oculography, blockchain and donation-based crowdfunding, smart city and framework development approach, news channel and media education, UAE foreign policy, China-GCC relations, diplomacy in the Internet age, intelligent

cyber-security strategies, industry securities and strategic challenges, hybrid alliances and corporate security, security and privacy in smart cities, human computer interaction and e-learning solution, complexity of smart cities governance. The papers included in this book present insightful information on the most recent and relevant research, theories and practices in the field, which aim for a sustainable future.

This publication has been designed to assist member States in integrating transport, health, quality of life and environmental objectives into urban and spatial planning policies. It provides many references to case studies, good practices and examples from cities across the Euro-Asian region (and beyond) covering a wide array of thematic areas, including: the future of sustainable urban mobility; spatial planning in function of sustainable urban mobility and accessibility; public transport planning as a cornerstone of sustainable urban mobility; active mobility and how it promotes health and the environment; and the potential of Intelligent Transport Systems in an urban context. The publication puts forward a methodology for sustainable urban transport planning and introduces a concise set of key messages and recommendations as an input to the Fifth High-level Meeting on Transport, Health and Environment which takes place in Vienna from 26-27 November 2020.

This book introduces the reader to the fundamentals of contemporary, emerging and future technologies and services in Internet computing. It covers essential concepts such as distributed systems architectures and web technologies, contemporary paradigms such as cloud computing and the Internet of things, and emerging technologies like distributed ledger technologies and fog computing. The book also highlights the interconnection and recombination of these Internet-based technologies, which together form a critical information infrastructure with major impacts on individuals, organizations, governments, economies, and society as a whole. Intended as a textbook for upper undergraduate and graduate classes, it features a wealth of examples, learning goals and summaries for every chapter, numerous recommendations for further reading, and questions for checking students' comprehension. A dedicated author website offers additional teaching material and more elaborate examples. Accordingly, the book enables students and young professionals in IT-related fields to familiarize themselves with the Internet's basic mechanisms, and with the most promising Internet-based technologies of our time.

The interplay between smart urban technologies and city development is a relatively uncharted territory. Technology and the City aims to fill that gap, exploring the growing importance of smart technologies and systems in contemporary cities, and providing an in-depth understanding of both theoretical and practical aspects of smart urban technology adoption, and its implications for our cities. Beginning with an elaboration of the historical significance of technologies in economic growth, social progress and urban development, Yigitcanlar introduces the most prominent smart urban information technologies. The book showcases significant smart city practices from across the globe that uses smart urban technologies and systems most effectively. It explores the role of these technologies and asks how they can be adopted into the planning, development and management processes of cities for sustainable urban futures. This pioneering volume contributes to the conceptualisation and practice of smart technology and system adoption in our cities by disseminating both conceptual and empirical research findings with real-world best practice applications. With a multidisciplinary approach to themes of technology and urban development, this book is a key reference source for scholars, practitioners, consultants, city officials, policymakers and urban technology enthusiasts.

This book constitutes the proceedings of the 18th International Conference on Perspectives in Business Informatics Research, BIR 2019, held in Katowice, Poland, in September 2019. This year's theme was: Responsibilities of Digitalization – Responsible designing and shaping of future technology for digital preservation, global data storage and cost-effective management. The 17 papers presented in this volume were carefully reviewed and selected from 74 submissions. This year the contributions focus on topics such as: responsibilities of digitalization; responsible designing and shaping the future of technology for digital preservation, global data storage and cost-effective management.

The Open Access version of this book, available at https://doi.org/10.4324/9780429290626, has been made available under a Creative Commons Attribution-Non Commercial-No Derivatives 4.0 license. Large-scale migration from rural to urban areas, and between countries, affects sustainable development at local, national, and regional levels. To strengthen urban and rural resilience to global challenges, Sustainable Development Goals Connectivity Dilemma: Land and Geospatial Information for Urban and Rural Resilience, brings together leading international geospatial experts to analyze the role of land and geospatial data infrastructures and services for achieving the United Nations' Sustainable Development Goals (SDGs). While the goals outlined in the 2030 Agenda have been longstanding aspirations worldwide, the complexity and connectivity between social, economic, environmental, and governance challenges are changing with large-scale urbanization and population growth. Structured in 5 parts, the themes and objectives of the book are in line with the critical challenges, gaps, and opportunities raised at all UN-GGIM events and UN-GGIM Academic Network forums. Through the different perspectives of scholars, industry actors, and policy-makers, this book provides interdisciplinary analysis and multisectoral expertise on the interconnection between the SDGs, geospatial information, and urban and rural resilience. Sustainable Development Goals Connectivity Dilemma: Land and Geospatial Information for Urban and Rural Resilience is an essential reference for researchers, industry professionals, and postgraduate students in fields such as geomatics, land administration, urban planning, GIS, and sustainable development. It will also prove a vital resource for environmental protection specialists, government practitioners, UN-GGIM delegates, and geospatial and land administration agencies. Features: Introduces a holistic and new approach to sustainable development Brings together social, economic, and environmental dimensions of sustainability Highlights the significance and the role of geospatial information in sustainable development Examines urban and rural interdependencies in the context of strengthening resilience Written by experts with diverse academic and professional backgrounds who examine connectivity and develop strategic pathways

O livro A Virada Digital: smart cities e smart grids em uma perspectiva multidisciplinar constitui-se em uma obra coletiva, com abordagem plural de temas relacionados ao setor elétrico, tendo como fio condutor reflexões acerca das novas tecnologias smart. Com vistas a garantir a multidisciplinaridade proposta no título, a obra foi dividida em três seções, com escopos e orientações particulares. A primeira seção dedicou-se aos aspectos técnicos, contemplando os novos sistemas e arquiteturas que representam a integração de diferentes técnicas e ferramentas de engenharia, comunicação e computação, trazendo novos desafios nessas áreas, mas também maior poder aos consumidores e interação com os fornecedores. A segunda seção está

voltada para a governança regulatória, que deverá mostrar-se compatível com os novos cenários e dinâmicas criadas pelos setores inteligentes, de modo a fomentar, viabilizar e orientar iniciativas smart para o atingimento de níveis mais elevados de eficiência, além de desenvolvimento econômico e bem-estar social. Na terceira seção do livro, busca-se considerar as práticas atuais e as opções futuras para se permitirem ajustes nos processos tecnológicos e seus efeitos. Tal avaliação, por si só, altera as possibilidades que estão dadas e permite que a sociedade seja agente na transformação socioambiental, no desenvolvimento econômico e na formulação de novas políticas. As redes e sistemas inteligentes gerarão impactos positivos sobre o meio, se as escolhas realizadas em seus aspectos técnicos, regulatórios e sociais forem tão inteligentes quanto as tecnologias projetadas. Examining the changing nature of cities in the face of smart technology, this book studies key new challenges and capabilities defined by the Internet of Things, data science, blockchain and artificial intelligence. It argues that using algorithmic logic alone for automation and optimisation in modern smart cities is not sufficient, and analyses the importance of integrating this with strong participatory governance and digital platforms for community action.

Within the most recent discussion on smart cities and the way this vision is affecting urban changes and dynamics, this book explores the interplay between planning and design both at the level of the design and planning domains' theories and practices. Urban transformation is widely recognized as a complex phenomenon, rich in uncertainty. It is the unpredictable consequence of complex interplay between urban forces (both top-down or bottom-up), urban resources (spatial, social, economic and infrastructural as well as political or cognitive) and transformation opportunities (endogenous or exogenous). The recent attention to Urban Living Lab and Smart City initiatives is disclosinga promising bridge between the micro-scale environments, with the dynamics of such forces and resources, and the urban governance mechanisms. This bridge is represented by those urban collaborative environments, where processes of smart service co-design take place through dialogic interaction with and among citizens within a situated and cultural-specific frame.

Cidades Inteligentes: uma Abordagem Sustentável discute os desafios do uso da tecnologia para interconectar a infraestrutura das cidades brasileiras e os diversos aspectos que envolvem a implantação de modelos de organização urbana conhecidos como cidades inteligentes. Elaborado pelo Centro de Estudos e Debates Estratégicos com o apoio técnico da Consultoria Legislativa da Câmara dos Deputados, o estudo destaca que uma cidade inteligente é aquela que investe em capital humano e social, desenvolvimento econômico sustentável, inovação e empreendedorismo, percorrendo os seguintes eixos: a educação formal, a economia baseada em conhecimento, os processos produtivos, a tecnologia, a sustentabilidade e a governança. Tudo com foco em cidadania, qualidade de vida e bem-estar dos cidadãos. É uma obra de referência para as administrações municipais que enfrentam os desafios de um desenvolvimento urbano interconectado, cooperativo, integrado, criativo, diversificado e sustentável.

This book addresses key questions about how Singapore is likely to develop going forward, what are the key challenges facing the state, and how is the government going to deal with these matters. The book shows how important Lee Kuan Yew and subsequent individual leaders have been in shaping Singapore, and goes on to consider specific new challenges, including rapid population growth, migration and a changing population mix, the rise of China and possible shifts in the regional balance of power, and anxieties about the economy and an increasing global backlash against the neo-liberal free trade regime. It considers key areas of economic policy, social policy, and foreign policy, and explores the changing nature of governance. It also examines the Singapore government's effort to contain the COVID-19 outbreak. Overall, the book provides a concise, comprehensive assessment of the current state of Singapore and its likely future direction.

Der Begriff "Smart City" steht für die Integration von miteinander kommunizierenden Technologiesystemen in die vorhandene städtische Infrastruktur, um die wachsenden Herausforderungen durch zunehmende Urbanisierung und Klimawandel bewältigen zu können. Zentrales Element dieser Smart Technologies ist die Informationstechnologie, die eine Kommunikation zwischen den einzelnen betroffenen Bereichen und deren Schnittstellen gewährleistet. Dieses Beuth Pocket gibt eine Gesamtübersicht zu unterschiedlichen Aspekten des Smart City-Ansatzes: Innovative Klimaschutzlösungen in den Bereichen Gebäude, Energie und Mobilität // Fusion von Infrastrukturen // Nutzung der Schwarmintelligenz für neue urbane Service-Angebote // Urban Mining und Urban Farming // Sharing economy.

A comprehensive overview of the Internet of Things' core concepts, technologies, and applications Internet of Things A to Z offers a holistic approach to the Internet of Things (IoT) model. The Internet of Things refers to uniquely identifiable objects and their virtual representations in an Internet-like structure. Recently, there has been a rapid growth in research on IoT communications and networks, that confirms the scalability and broad reach of the core concepts. With contributions from a panel of international experts, the text offers insight into the ideas, technologies, and applications of this subject. The authors discuss recent developments in the field and the most current and emerging trends in IoT. In addition, the text is filled with examples of innovative applications and real-world case studies. Internet of Things A to Z fills the need for an up-to-date volume on the topic. This important book: Covers in great detail the core concepts, enabling technologies, and implications of the Internet of Things Addresses the business, social, and legal aspects of the Internet of Things Explores the critical topic of security and privacy challenges for both individuals and organizations Includes a discussion of advanced topics such as the need for standards and interoperability Contains contributions from an international group of experts in academia, industry, and research Written for ICT researchers, industry professionals, and lifetime IT learners as well as academics and students, Internet of Things A to Z provides a much-needed and comprehensive resource to this burgeoning field.

Smart City, Smart StrategyCities Around the World are Embracing the Digital Revolution - But how Well are They Really Doing?Untangling Smart CitiesFrom Utopian Dreams to Innovation Systems for a Technology-Enabled Urban SustainabilityElsevier

This open access book explores supply chains strategies to help companies face challenges such as societal emergency, digitalization, climate changes and scarcity of resources. The book identifies industrial scenarios for the next decade based on the analysis of trends at social, economic, environmental technological and political level, and examines how they may impact on supply chain processes and how to design next generation supply chains to answer these challenges. By mapping enabling technologies for supply chain innovation, the book proposes a roadmap for the

full implementation of the supply chain strategies based on the integration of production and logistics processes. Case studies from process industry, discrete manufacturing, distribution and logistics, as well as ICT providers are provided, and policy recommendations are put forward to support companies in this transformative process.

This book provides a comprehensive introduction to the study of sensors and the Internet of Things (IoT) from a government and public policy perspective. Since 2011, federal spending on IoT has been growing at a compound annual rate of ten percent. New technologies, such as sensors, and new kinds of data, such as big data, are creating new ways to systematically capture data and to use it to respond to complex problems. Some of these new technologies and applications have been identified and studied in recent literature in terms of their relevance to government. This volume adds to the literature by presenting sound theories and concepts for understanding the opportunities and challenges governments face when seeking to improve public services and government operations through the use of IoT. It also includes innovative methodologies for building understanding of the potential of a smart and connected government. In addition, the book offers relevant case studies and practical recommendations for the development, management, and evaluation of public policies and government programs.

Das Buch, das Smart Cities einfach, aber nicht vereinfachend erklärt. Erfahren Sie alles, was Sie über die Licht- und Schattenseiten smarter Entwicklungen wissen müssen und wie eine positive Transformation gelingen kann. Führende deutsche Unternehmen, Verbände, Vereine, Universitäten, Forschungseinrichtungen, Stiftungen, NGO, Startups und Experten sowie Vertreter der Bundes-, Landes- und Kommunalverwaltung erklären qualifiziert, wo wir stehen und was uns bevorsteht.

Seit 2007 wohnt erstmals mehr als die Hälfte der Menschheit in Ballungsräumen, im Jahr 2030 werden es 60 Prozent sein. Mit der weltweiten Urbanisierung wächst der Bedarf an vernetzten Technologien. Deutschland hat gute Chancen, sich als führender Anbieter solcher „Smarter Technologien" zu etablieren – wenn dafür die Rahmenbedingungen geschaffen werden. In dem Band erläutern Experten aus Wissenschaft und Wirtschaft, wie als Antwort auf den Bedarf an integrierten Lösungen neue Wertschöpfungsmöglichkeiten erschlossen werden können.

This essay reviews the political circumstances and strategic orientations of Vienna's comprehensive urban development policy, and how the EIB's investments facilitated key projects and supported Vienna's process of urban modernisation. Urban development in Vienna took place in four cycles, which are characterised by distinctive internal and external conditions and opportunities. Each prompted different levels of EIB engagement.

In cities around the world, digital technologies are utilized to manage city services and infrastructures, to govern urban life, to solve urban issues and to drive local and regional economies. While "smart city" advocates are keen to promote the benefits of smart urbanism – increased efficiency, sustainability, resilience, competitiveness, safety and security – critics point to the negative effects, such as the production of technocratic governance, the corporatization of urban services, technological lock-ins, privacy harms and vulnerability to cyberattack. This book, through a range of international case studies, suggests social, political and practical interventions that would enable more equitable and just smart cities, reaping the benefits of smart city initiatives while minimizing some of their perils. Included are case studies from Ireland, the United States of America, Colombia, the Netherlands, Singapore, India and the United Kingdom. These chapters discuss a range of issues including political economy, citizenship, standards, testbedding, urban regeneration, ethics, surveillance, privacy and cybersecurity. This book will be of interest to urban policymakers, as well as researchers in Regional Studies and Urban Planning.

This book concludes a trilogy that began with Intelligent Cities: Innovation, Knowledge Systems and digital spaces (Routledge 2002) and Intelligent Cities and Globalisation of Innovation Networks (Routledge 2008). Together these books examine intelligent cities as environments of innovation and collaborative problem-solving. In this final book, the focus is on planning, strategy and governance of intelligent cities. Divided into three parts, each section elaborates upon complementary aspects of intelligent city strategy and planning. Part I is about the drivers and architectures of the spatial intelligence of cities, while Part II turns to planning processes and discusses top-down and bottom-up planning for intelligent cities. Cities such as Amsterdam, Manchester, Stockholm and Helsinki are examples of cities that have used bottom-up planning through the gradual implementation of successive initiatives for regeneration. On the other hand, Living PlanIT, Neapolis in Cyprus, and Saudi Arabia intelligent cities have started with the top-down approach, setting up urban operating systems and common central platforms. Part III focuses on intelligent city strategies; how cities should manage the drivers of spatial intelligence, create smart environments, mobilise communities, and offer new solutions to address city problems. Main findings of the book are related to a series of models which capture fundamental aspects of intelligent cities making and operation. These models consider structure, function, planning, strategies toward intelligent environments and a model of governance based on mobilisation of communities, knowledge architectures, and innovation cycles.

This Handbook provides a scholarly and comprehensive account of the multiple converging challenges that digital technologies present for intellectual property (IP) rights, from the perspectives of international, EU and US law. Despite the fast-moving nature of digital technology, this Handbook provides profound reflections on the underlying normative legal dilemmas, identifying future problems and suggesting how digital IP issues should be dealt with in the future.

This book presents an in-depth review of the state of the art of cyber-physical systems (CPS) and their applications. Relevant case studies are also provided, to help the reader to master the interdisciplinary material. Features: includes self-test exercises in each chapter, together with a glossary; offers a variety of teaching support materials at an associated website, including a comprehensive set of slides and lecture videos; presents a brief overview of the study of systems, and embedded computing systems, before defining CPS; introduces the concepts of the Internet of Things, and ubiquitous (or pervasive) computing; reviews the design challenges of CPS, and their impact on systems and software engineering; describes the ideas behind Industry 4.0 and the revolutions in digital manufacturing, including smart and agile manufacturing, as well as cybersecurity in manufacturing; considers the social impact of the changes in skills required by the globalized, digital work environment of the future.

Cities are the next frontier for artificial intelligence to permeate. As smart urban environments become possible, probable, and even preferred, artificial intelligence offers the chance for even further advancement through infrastructure and industry boosting. Opportunity overflows, but without thorough research to guide a complicated development and implementation process, urban environments can become disorganized and outright dangerous for citizens. AI-Based Services for Smart Cities and Urban Infrastructure is a collection of innovative research that explores artificial intelligence (AI) applications in urban planning. In addition, the book looks at how the internet of things and AI can work together to enable a real smart city and discusses state-of-the-art techniques in urban infrastructure design, construction, operation, maintenance, and management. While highlighting a broad range of topics including construction management, public transportation, and smart agriculture, this book is ideally designed for engineers, entrepreneurs, urban planners, architects, policymakers, researchers,

academicians, and students.

Over the past decade smart urban technologies have begun to blanket our cities, forming the backbone of a large intelligent infrastructure. Along with this development, dissemination of the smart cities ideology has had a significant imprint on urban planning and development. Smart Cities and Innovative Urban Technologies focuses on the concepts of smart cities and innovative urban technologies. It contains research that provides insight into spatial formations of information and communication technologies, and knowledge production practices from various perspectives—including analyses of public and private sectors together with NGOs and other stakeholders. It provides a state-of-the-art analysis from multidisciplinary point-of-view in urban studies. Contributions in this edited volume include theoretical developments as well as empirical analyses. This book will be of great use to various audiences including academics as well as practitioners, spatial developers, planners, and public administrators in order to increase understanding of the dynamics and factors effecting smart cities conceptual maturation and their physical emergence. Information generated in these chapters, particularly regarding the challenges and obstacles of smart cities and innovative urban technologies, are intended to be of benefit to the key local actors in making decision in their cities or/and peripheral locations. This book was originally published as a special issue of the Journal of Urban Technology.