

**INNOVATION NETWORK
»MORGENSTADT: CITY INSIGHTS«
PHASE III**



1 INTRODUCTION

1.1 Vision of the City of the Future

The Fraunhofer Innovation Network “Morgenstadt / City of the Future” is a platform of high-level first movers from cities and industry run by the German Fraunhofer-Society. It aims at developing and implementing socio-technical innovations for the city of the future. The fundamental goal of the network is to accelerate development that helps reduce energy and resource consumption, enhancing at the same time the resilience and liveability of cities.

Piloting digital, technical and nature-based innovations for cities represents the core of our joint Morgenstadt efforts.

We apply the full scale of cutting-edge innovation management to a high-level network of cities and companies that are already working in the field of urban sustainability in Europe and around the world. We aim to become the leading global network to deliver innovations to cities through three key approaches:

Evolutionary innovation: We demonstrate and quantify new markets and development potentials in urban systems for existing products, technologies and solutions (evolutionary innovation), and we integrate technologies and processes into new systems of urban solutions.

Revolutionary innovation: We identify coming technology-effects and disruptive developments for the city of tomorrow and conceive new products, systems and business models.

Piloting and demonstration: We work together in consortia of cities, research and industry to pilot and demonstrate urban solutions that will become mainstream market in five to ten years. We give impulses today for proving the sustainability potential of urban innovations and for mitigating the investment risk in the future.

Members of the network share three important convictions:

- Sustainable cities are the key to the sustainable future
- Technical, organizational, and financial innovations are key to creating sustainable cities
- Interdisciplinary collaboration lies at the heart of urban innovation

Based on those underlying principles the innovation network sends impulses for the innovative development of urban systems that work towards a sustainable liveable future city. The primary mission of the network is to identify, conceive, initiate and implement pilot and demonstration projects for sustainable urban solutions in cities in Germany and around the world. Projects are developed in variable consortia made up of industry, city, and research partners.

We believe that each city is unique. We therefore build upon scalable methods and tools and on interdisciplinary collaboration to develop and implement innovative and scalable solutions for an individual context.

1.2 The Morgenstadt Mission: accelerating innovation in cities

The innovation network "Morgenstadt: City Insights" took up its work in June 2012. It is following a joint approach across three phases that aim to develop market-based approaches and new forms of public-private collaborations for delivering smart and sustainable urban systems in collaboration between cities, industry and research.

Phase 1 - Understanding urban systems

Over 50 researchers from 12 Fraunhofer- Institutes conducted a rigorous on-site analysis of six leading global cities: Freiburg, Copenhagen, New York, Berlin, Singapore and Tokyo. Over 100 best practices in eight urban sectors were analysed using a transdisciplinary approach. The research identified requirements for the urban markets of the future and enabled new collaborations between private sector industry partners, research institutes, community groups and city administrations. The Morgenstadt Framework, which is used today to deliver integrated action roadmaps to cities, was developed based on the analysis of globally leading cities.

Phase 2 - Creating sustainable urban demonstrators

Since 2014 members of the innovation network are ramping up pilots and demonstrators for first-of-its kind sustainable city development projects. Overall, 35 projects and project ideas have been developed out of the network, which today are at various stages of implementation. Through our City Challenge we applied the Morgenstadt Framework to cities of Prague, Lisbon, Chemnitz and Berlin TXL. Additional Morgenstadt City Labs were conducted in Leipzig, Sabadell and Tbilisi – all leading to significant investments in clean and connected urban technologies.

Phase 3 - Developing the market for sustainable cities

The third project phase of »Morgenstadt: City Insights« is directly related to the project phase I "Understanding Sustainable Urban Systems" and the project phase II "Sustainable Urban Pilot Projects" and is taking place between 2017 and 2020. Together with the Morgenstadt partners, the Fraunhofer Society is focusing on delivering close-to-market innovations that attract full-scale investments into urban innovations. This requires sound technology concepts, but also innovative ways of financing and governing urban investments. In Phase 3 of Morgenstadt we aim to launch joint ventures, work with start-ups and trigger significant procurement of innovation in cities across Europe and worldwide.



Graph 1: Three phases of Morgenstadt

1.3 Morgenstadt results since 2012

1.3.1 Research projects

Since 2014 more than 45 projects and over 120 million Euro have been raised at national and European level.

Future City Bottrop

(BMBF) 02.2015–04.2016

The Morgenstadt partner Bottrop applied successfully to the tender future city competition. Bottrop develops together with citizens, science, local politics and administration a holistic and sustainable vision 2030+.

Future City Ludwigsburg

(BMBF) 02.2015–04.2016

The Morgenstadt partner Ludwigsburg applied successfully to the tender future city competition. Ludwigsburg develops together with citizens, science, local politicians and administration a holistic and sustainable vision 2030+.

Future City Norderstedt

(BMBF) 02.2015–04.2016

The Morgenstadt partner Norderstedt applied successfully to the tender future city competition. Norderstedt develops together with citizens, science, local politicians and administration a holistic and sustainable vision 2030+.

Future City Grafing near Munich

(BMBF) 02.2015 - 04.2016

Successful application of the city Grafing near Munich in cooperation with other Morgenstadt Partners. Grafing develops together with citizens, science, local politicians and administration a holistic and sustainable vision 2030+. Therefore a three-dimensional participation platform was implemented and used.

TRIANGULUM

(EU Commission) 02.2015–01.2020

Horizon 2020 EU Smart Cities and Communities Project. Cutting-edge concepts for smart district development are already emerging as part of European project TRIANGULUM. Project partners are elaborating and implementing solutions for this with the clear objective of implementing these ideas within three years in Manchester, Eindhoven and Stavanger. The Fraunhofer IAO is coordinating the project. Morgenstadt partners are involved (TÜV SÜD, Siemens, Cadfem and city partners).

GrowSmarter

(EU Commission) 02.2015–01.2020

Horizon 2020 EU Smart Cities and Communities Project. GrowSmarter aims to showcase smart solutions in real-life context in its three lighthouse cities Stockholm, Cologne and Barcelona. Follower cities Valetta, Suceava, Porto, Cork and Graz will follow the lighthouse. The Morgenstadt partners Köln, ICLEI, IBM und [UI] are involved.

Smart Urban Services

(BMBF) 11.2014 - 04.2018

This project examines how the new-networked services can help to connect different urban spaces and actors and to establish an integrated approach for value creation. Research institutes and cooperating cities are identifying and demonstrating new, viable approaches for value creation and service innovation. The Morgenstadt partners Reutlingen, Chemnitz, Bosch, OSRAM und SWARCO are involved. The Fraunhofer IAO is coordinating the project.

ESPRESSO (SCC3)

(EU Commission) 04.2015–03.2018

The EU-Project ESPRESSO (systemic Standardisation approach to Empower Smart cities and communities) forms a network of various stakeholders and experts (SmaCStak) working on standardized smart city framework. ESPRESSO will develop a common language and a city information & indicator platform ("Smart City enterprise application") that can be applied in different cities.

Smarter Together

(EU Commission) 03.2016–02.2021

Horizon 2020 EU Smart Cities and Communities Project. The project Smarter Together demonstrates smart and inclusive solutions in the lighthouse cities Vienna, Munich and Lyon. The follower cities are Santiago de Compostela, Sofia and Venice and the observer cities are Kiev and Yokohama with the overarching aim to improve citizens' quality of life. On Part of the Fraunhofer IAO the Fraunhofer IBP and OSRAM are involved.

City Lab Berlin TXL

09.2013–6.2016

Successful City Lab analysis: The airport should be converted to a research and industry park – the "Berlin TXL Urban Tech Republic" (UTR). The Fraunhofer society was an organizer of applied research to be integrated into the planning and the design of the concept of the UTR. The Fraunhofer IAO supports the Tegel Projekt GmbH within the Morgenstadt innovation network in formulating a vision and roadmap for the UTR.

City Lab Chemnitz

9.2015–9.2016

Successful City Lab analysis: Within the City Lab Chemnitz, quantitative and qualitative data material has been evaluated in order to develop a holistic comprehension for the city of Chemnitz, its strengths and weaknesses and its innovation and future potentials.

City Lab Prague

3.2016–4.2017

Successful City Lab analysis: The in-depth analysis of Prague was carried out based on the Morgenstadt assessment framework for sustainable urban development. The City Labs analysis shows strengths and weaknesses of the current development process of Prague and suggests an integrated roadmap for pushing Prague into the league of leading cities in Europe.

City Lab Tbilisi

05.2015–03.2016

Successful City Lab analysis: A city team of four members of the »Morgenstadt Innovation Network« supported by a counterpart from Tbilisi City Hall analyzed the status quo of the city (City Profile) using qualitative and quantitative methods and developed a customized roadmap for sustainable urban development. Based on the analysis possible innovation projects deducted: Tbilisi Game, Construction Knowledge Centre Tbilisi and the Pedestrian Master Plan.

City Lab Lisbon

7.2016–5.2017

Successful City Lab analysis: The Analysis made it possible to identify the strengths and weaknesses of the city across several sectors, as well as key areas of intervention for smart and sustainable development. The City Lab process highlighted a range of overarching issues and therefore key proposed solutions were developed.

Innovation partnership Eindhoven

(EU - Commission) 02.2015–01.2020

Horizon 2020 EU Smart Cities and Communities Project. Eindhoven is one of the three lighthouse cities within the Triangulum project. In Eindhoven, two districts will be transformed into sustainable living environments during the course of the project. The former Philips industrial complex in the "Strijp-S" neighbourhood will become a creative smart district.

Innovation partnership Buenos Aires: Buenos Aires Strategy 2030

2016–2017

In 2016 Buenos Aires became a partner in the 'Morgenstadt:City Insights'. The Fraunhofer team is going to support Buenos Aires with its Buenos Aires Strategy 2030.

UnaLab

(EU- Commission) 02.2015–01.2020

European SCC Projects: Horizon 2020 EU Research and Innovation Programm. The project concept is based on the validation of nature-based solutions (NBSs) by implementing urban living labs demonstration areas in three frontrunner cities Eindhoven, Genova and Tampere.

Smartpolis – Smart city centre of excellence

(EU - Commission) 02.2015–01.2020

Horizon 2020 EU Smart Cities and Communities Project. Development of a center of excellence for Smart Cities in Budapest: The Center will help cities in East-Central Europe to meet the European Union's climate objective, and to facilitate the transition to smarter and more sustainable urban infrastructure.

SMARTilience

05.2017–04.2018

European SCC Projects: The SMARTilience project aims to design a municipal control model for climate-friendly urban development and to implement it in the two German cities of Halle and Mannheim. Innovative governance formats for an integrated communal management are to be brought together with concrete fields of action for a climate-friendly city and tested in the form of debates.

SMART CITY Charta

09.2015–01.2014

The goal of the project is to initiate an expert-level discussion on a "Smart City Charter for Germany" based on expert input and on the resulting key features, and to propose guidelines for the development of urban governance framework for future cities. The results will be fed into the "Smart Cities" dialogue platform of the BMUB and the working group "Smart Cities and Sustainable Development" of the Inter-ministerial Working Group "Sustainable Urban Development in the National and International Level" (IMA City) of the German Federal Government.

Innovative district: Esslingen – Weil

05.2016–12.2017

In the area of Esslingen-Weil the project company Büro Godel is currently developing a neighbourhood with approx. 18,000 sqm of living space in the form of apartments and terraced houses. The framework conditions for the development of a socially fair district with a 75% quota of social housing as the basis for social innovations in the planning and utilization phase were developed in cooperation with planning experts and the city of Esslingen.

1.3.2 City Labs

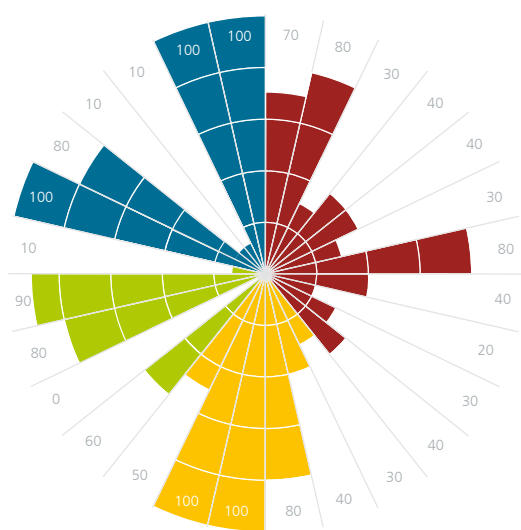
To streamline future-proof urban development making cities more environmentally friendly, prosperous, livable and resilient, Fraunhofer has developed the Morgenstadt City Lab Framework, focussing on the interplay of clean & conncted technologies, efficient business models and innovative governance approaches for sustainable urban development. The City Lab Framework builds on a standardized data assessment tool that helps assess the status quo of urban systems and identify key challenges and opportunities for future urban development. A mixture of quantitative benchmarks and qualitative data allows for an insight into the performance profile of the city, while accounting for the city's individual characteristics.

Through the Morgenstadt City Challenge, four City Labs have been identified: Prague, Lisbon, Chemnitz and Berlin TXL. A fifth City Lab in Tbilisi was supported by the German

development bank KfW. For each winner of the city challenge, an interdisciplinary team of Morgenstadt researchers prepared an in-depth assessment and developed an action roadmap towards sustainability. The herby defined projects are brought towards realization in mixed consortia of local stakeholders and Morgenstadt partners.

1.3.3 Morgenstadt City Index

An interdisciplinary research team from the Fraunhofer Society defined in 2016 28 indicators that were categorized by four central themes (quality of life, environmental consciousness, innovation and resilience) in order to measure the future viability of a city. Through the graphic visualization of the results, the Morgenstadt City Index offers a snapshot of a city and a guide for city managers to help balance priorities across these four important areas



Berlin's performance

Values in %

- Liveable City
- Resilient City
- Green City
- Innovative City

(More information about the 28 indicators and detailed data can be found in the online study under: www.morgenstadt.de.)

Graph 2: Morgenstadt City Index Berlin 2016

1.3.4 Tools and spin-offs

The "Morgenstadt" Innovation Network supports cities in their ambitions of achieving a higher quality of life, improved resilience and environmental sustainability.

In addition, the innovation network helps companies to apply their innovative technologies in cities and to integrate their technical expertise in smart city projects.

Numerous solutions and tools are available to help cities, businesses, investors and political institutions develop their city smarter. Through the innovation network, investors can identify the potential for financial investments in promising projects and develop innovative business models ("Morgenstadt Readiness Index" and "Smart City Investment Kit").

Bable

BABLE is a spin-off company from the Morgenstadt Network and a digital marketplace for Smart Cities. It has been created as service and replication platform under the Smart Cities and Communities Lighthouse Projects Cooperation Manifesto. BABLE has been designed to accelerate and facilitate investments into successful smart city solutions across Europe. It supports cities in procuring smart city solutions and planning smart city projects. It provides a platform for companies to sell their own products and solutions to smart cities.

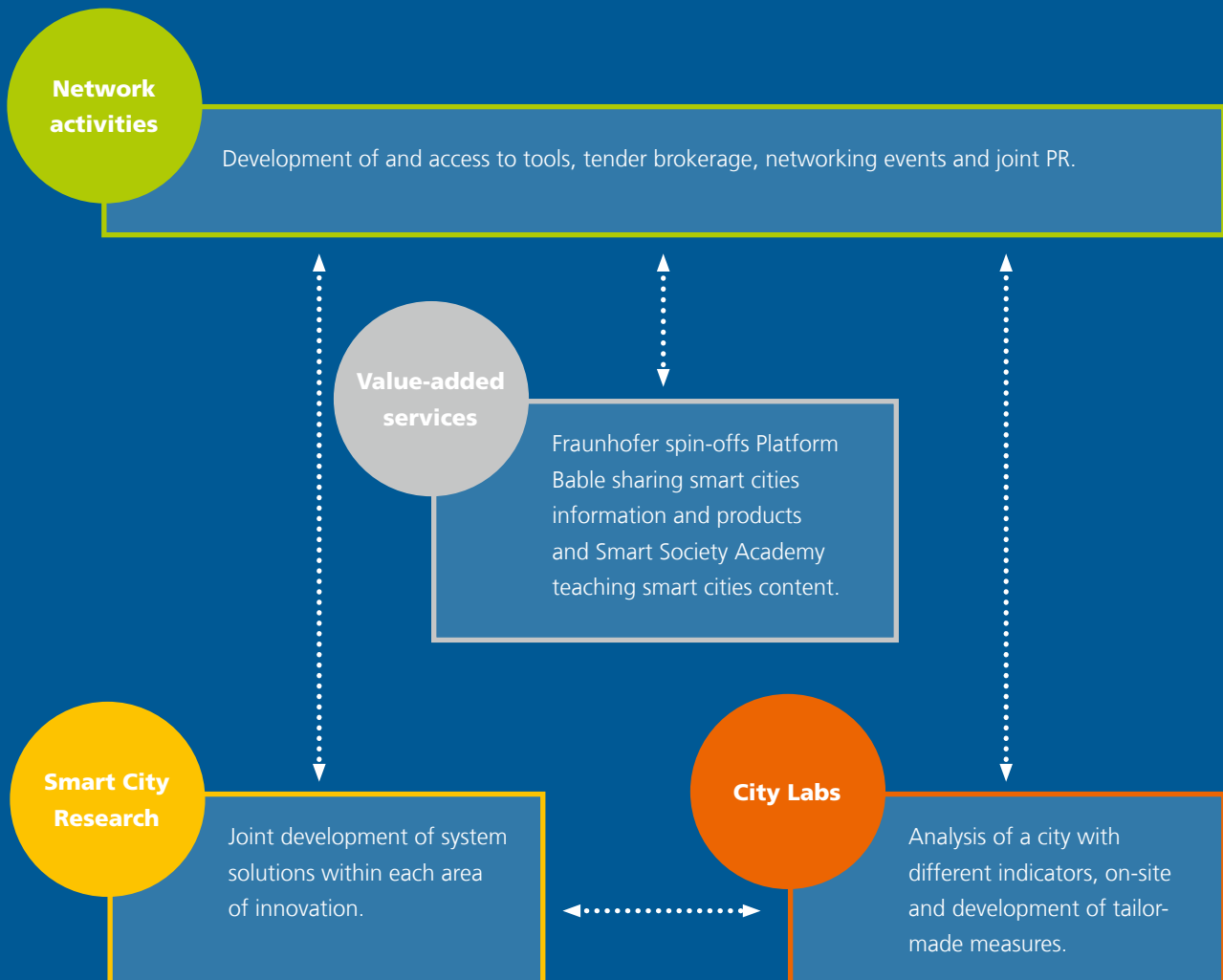
Smart Society Academy

The Smart Society Academy is an educational umbrella for smart city related training on all levels of operatives:

- students (future professionals)
- professionals in both cities and industry
- industry and city leaders

The Smart Society Academy is a direct result from the work within the Dutch-German partnership triggered by signing a Memorandum of Understanding on April 7th on the High-tech Campus in Eindhoven and is powered by the Morgenstadt Community.

Morgenstadt Phase III



Graph 3: Structure of Morgenstadt in 2018

2 THE MORGENSTADT NETWORK

Unique to the Morgenstadt Network is its heterogeneous base of partners. We are convinced that we will only succeed in developing better cities, if all actors are at the table: municipalities and municipal companies, investors, different types of industry, IT-companies, operators, planners, designers and financial institutions. We need small cities and large cities, multinational companies, research and start-ups.

The Morgenstadt Network is harnessing the synergies of these multiple backgrounds to shape sustainable and innovation driven cities. Based on an open and collaborative approach towards urban innovation, the Morgenstadt Network constantly links real city challenges to urban innovations and provides insight and intelligence for cities and companies alike.

2.1 Overview

To turn city challenges into innovation, the Morgenstadt Network works across three main work streams, supported by several network activities and value-added services. These work streams are:

1. Morgenstadt City Labs
2. Innovation Partnerships
3. Joined Research programs

The »Morgenstadt City Lab« is a one-of-its-kind approach to accelerate the sustainable and innovation-driven development of an entire city. We apply the unique »Morgenstadt Framework« to design individual smart city implementation roadmaps and investment plans for cities in Germany, Europe and on global scale.

The Morgenstadt Innovation Partnerships seek to create local clusters of companies, start-ups and public sector institutions, driven by research and innovation to strengthen the

competitiveness of all actors involved. Morgenstadt's innovation partnerships generate visibility through lighthouse projects, sustainable growth and its inclusive approach.

Fraunhofer and the Morgenstadt partners collectively develop the Morgenstadt research programs. They are based on future technology trends with relevance to urban development and the knowledge interests of our partners.

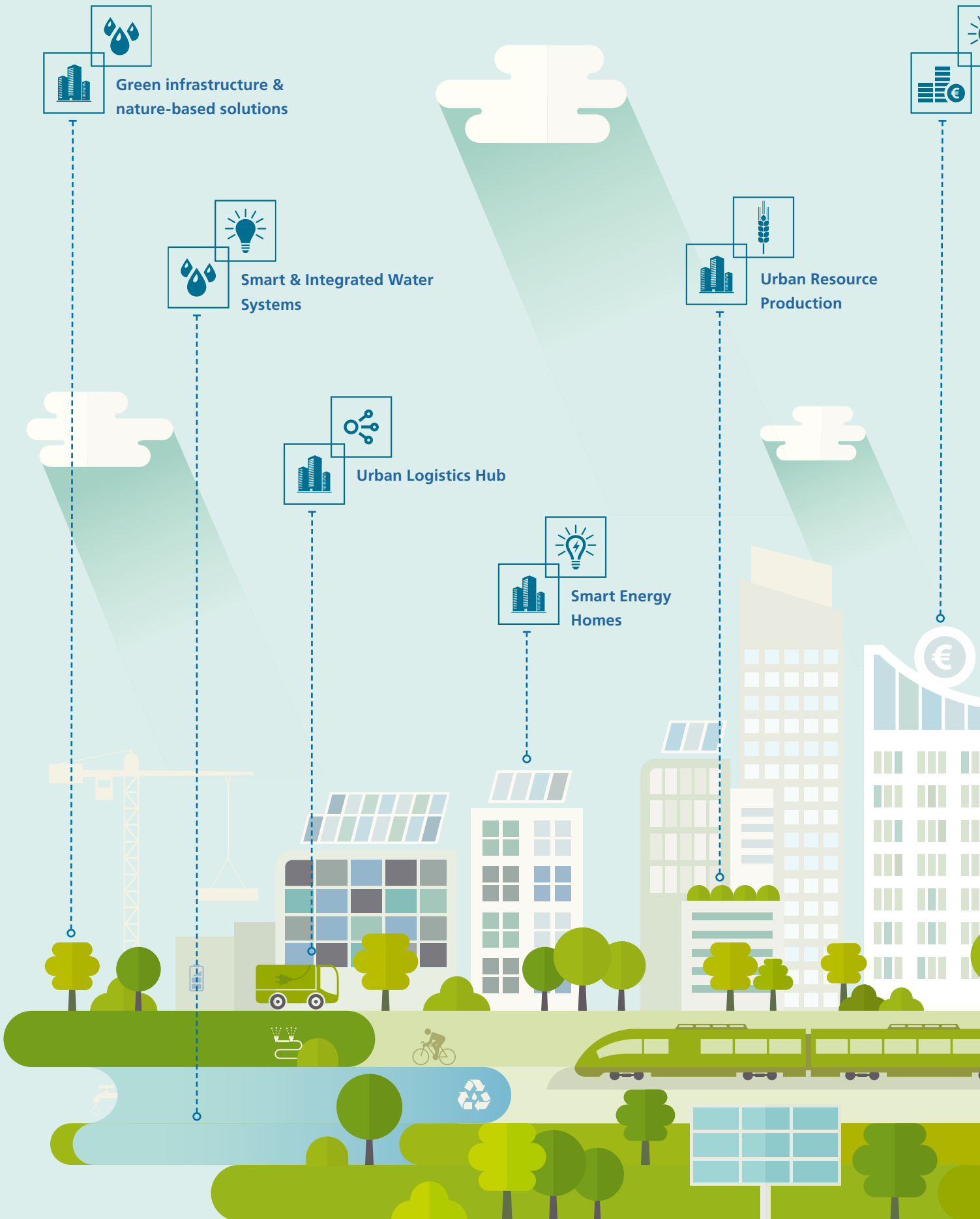
2.2 The Morgenstadt research areas for the future city

The Morgenstadt research programs tackle current and future challenges for a sustainable urban development based on social, economic and technological innovation. Research is designed and delivered within agile clusters of Morgenstadt members and often involves additional partners from universities, cities or industry.

The Morgenstadt research is designed to make urban innovation investments future proof and to guide cities and companies through an ever-accelerating process of digital innovation. The Morgenstadt research helps cities distinguish what is possible from what is wise.

Morgenstadt partners and Fraunhofer researchers collectively design the Morgenstadt research programs. We do so by referring to a large set of fields of innovation that represent current Fraunhofer research areas and the areas of business- and service development of our partners. Graph 6 gives an overview of the Morgenstadt fields of innovation.

Not all research topics are covered at the same time. Based on jointly defined priorities we design and ramp-up individual research programs that may reach across some fields of innovation. Any Morgenstadt member can join existing research programmes or suggest new research initiatives. The initial phase of all research programmes is always covered by



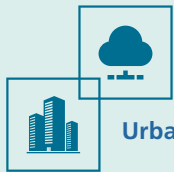
Graph 6: Thematic fields of innovation



Smart Financing



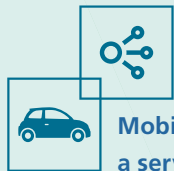
Urban Governance & Planning



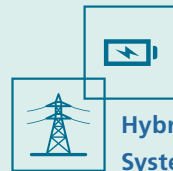
Urban Data Platform



Intelligent & Connected Public Space



Mobility as a service



Hybrid Energy Systems



Urban Security & Resilience



Morgenstadt membership funding. For the in-depth research we usually set-up a separate agreement with an individual consortium of the research program.

The goal of the Morgenstadt research programs is to create new applicable solutions that make an impact on our cities. To this end we always include business and finance models as well as the transformation management that is necessary to get a new solution off the ground.

2.3 Our network activities

The Morgenstadt Network is constantly developing and open to complementary addition of national and international industrial and municipal actors as well as planning offices, research institutes and value partners.

Graph 4: Morgenstadt partners (November 2017)

One of our key activities consists in regular in person meetings facilitated for the purpose of initiating projects and exchanging ideas and best practices. Progress in individual fields of research is presented in the plenum and discussed and evaluated by the project members. The project meetings are complemented by expert lectures and best-practice tours of ground-breaking projects. Morgenstadt Network Meetings take place 3 times a year and are envisaged to take Morgenstadt Partners to outstanding European locations of urban innovation (e.g. Eindhoven, Copenhagen, Amsterdam, London etc.). The Morgenstadt Network Meetings are great occasions to meet the mayors and vice mayors of our host cities, to exchange with local experts and to raise awareness and communication on Morgenstadt activities in Europe.

Since 2012 the awareness and visibility of the Morgenstadt Network has been significantly increased. Various measures have been carried out in response to the German science year "City of the Future", but also the international visibility has been raised through presentations, study visits and reports in South America or Asia.

The Marketing and Communication strategy for 2018/2019 aims to establish the Morgenstadt Innovation Network as the strongest European institution, when it comes to urban innovations, sustainable urban development and smart cities. Therefore the project management will organize a range of marketing and communication activities that position Morgenstadt Partners in the core of international dialogues on smart cities. An example is the joint organization of three trade fairs and international events and the Representation of Morgenstadt.

2.4 The Morgenstadt City Labs

The Morgenstadt City Lab helps to solve local challenges through innovation and co-creation. It provides a framework for the development of coherent and integrated smart city / sustainability strategies and it builds on an early involvement of urban stakeholders such as local companies, financing institutions and end users.

The city analysis is usually carried-out by Fraunhofer researchers. For developing locally adapted innovation projects we involve our network partners based on their capacity and solutions provided, leading to joined projects and implementation of new technologies in the cities that work with the Morgenstadt approach.

In the face of increasing complexity of urban development challenges a new urban planning paradigm championing the Co-creation approach has gained relevance. This paradigm has been adopted by the Morgenstadt City Lab Framework as its guiding principle because it has been proven that an early involvement of relevant urban stakeholders such as technology providers, financing institutions and end users into the project planning process helps the city amplify its innovation potential and streamline future-oriented development.

Based on the assessment results, innovative projects aimed at spurring the city's future-proof development are designed in a co-creation process with local stakeholders. The co-creation approach ensures development of demand-driven, user-friendly and locally-attuned projects, which will be underpinned with viable business models and alternative financing strategies to ensure their success at both the implementation and operation stages. To maximise their impact and achieve maximum synergy, the proposed projects will be integrated into the city's urban development plans and strategies.

Technologies & Infrastructures

The outer ring presents the technologies and infrastructures, such as energy and water supply, waste management.

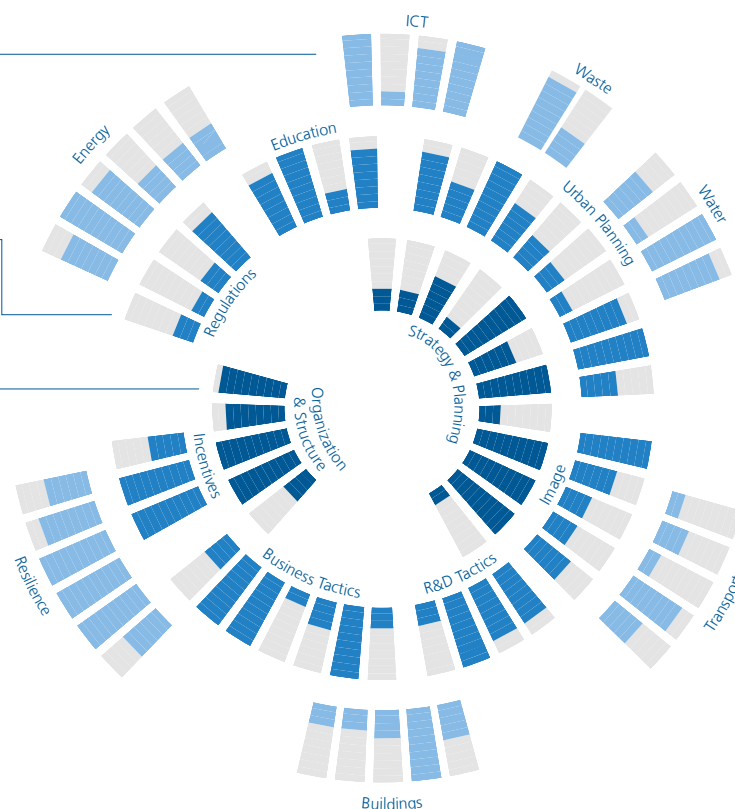
Enabling Strategies

The middle ring shows the enabling strategies as the local ecosystem or R&D tactics.

Urban Leadership

The inner ring describes the aspects of the urban leadership, e.g. strategy & planning or structure.

The three levels show at one glance the performance of a city.



Graph 5: The Morgenstadt City Framework

City Lab Methodology

The City Lab Framework is designed to analyse the city's sustainability performance and subsequently develop a holistic urban development roadmap outlining a range of state-of-the-art locally anchored projects of various scales and across multiple sectors meant to catalyse future-proof urban development. (See graph 5)

Results

- Individual sustainability profile that shows current strengths and challenges;
- Benchmark towards other cities;
- Supply of a monitoring tool for further development;
- Capacity building of city officials;
- Strategic roadmap to sustainable development;
- 3–5 system-wide projects ready for immediate implementation;
- Activation of key stakeholders for project implementation and operation push;
- Access to public and private funding and financing opportunities.

2.5 The Morgenstadt Innovation Partnerships

Since the beginning of the Morgenstadt Initiative we have come to learn that we can not respond to the complex urban challenges of today with the processes and tools of yesterday. Increasing the resilience of a city, reducing emissions or delivering digital and connected services are examples of urban development processes that link multiple actors from different sectors and institutions into highly diverse constellations. Politicians, city administrations, large industry players, local businesses, citizen associations and research – these groups will only collaborate successfully if all partners find their own benefit within the collaboration. The Morgenstadt Innovation Partnerships help partner cities with inducing individual innovation processes that link local businesses, citizens, the administration and Morgenstadt business and research.

In essence, we identify local innovation capacity and match it with innovative solutions and approaches from research and industry partners to create strong partnerships on urban innovation. Based on the experience of the “Morgenstadt City Labs” the form of collaboration “innovation partnerships” has been developed.

Morgenstadt’s innovation partnership generates visibility through lighthouse projects, sustainable growth and its inclusive approach. Innovation partnerships have been developed with a range of cities.

A second kind of innovation partnerships supports companies that aim to succeed in the smart city market. A Morgenstadt Innovation Partnership generates visibility for the company and positions it right in the front in the market. Expert knowledge concerning technologies and digital business models, the direct access to decision-makers of lighthouse cities in Europe and an application-orientated approach makes the Morgenstadt Innovation Partnership to a successful model. The result of Morgenstadt Innovation Partnerships consist in

successful business strategies and projects with cities and municipalities in Europe and world-wide. On a long-term perspective, Morgenstadt Innovation Partnership empower companies to transform own processes and structures as a basis for a future-proof company development.

2.6 Value added Morgenstadt services

The Morgenstadt Network has developed several tools, methodologies and value-added services. Morgenstadt Network members receive exclusive (or discounted) access to these assets and are free to use them for their own purposes.

The value added services can be divided into two groups: a). Add-on services that fulfil additional but related needs of the Morgenstadt partners and b). Existing tools and methodologies that can be applied by each partner:

a) Morgenstadt add-on Services

1. Smart City Marketplace BABLE

BABLE is a Morgenstadt spin-off, enabling cities to procure innovation and enabling companies to promote their own products and solutions that are aimed to make cities smarter. While the platform is free to access and use, promoting own products comes with a fee. Morgenstadt partners receive a 15% discount for the Marketplace BABLE. www.bable-smartcities.eu

2. Smart Society Academy

The Smart Society Academy provides future smart city professionals from the public and private sectors with applicable knowledge and tools to design, plan, finance, build and operate innovative solutions for smart cities. Attendees subscribe for a 6 months professional course on one focus area of smart city development. Courses offered so far are: Urban Space, Urban Movements, Urban Energy and Urban Digitalization. Morgenstadt Partners are invited to attend the courses with a 10% discount and, if

interested, to co-design and lecture the courses.

https://www.morgenstadt.de/en/solutions/solutions_for_cities/academy.html

3. Morgenstadt Werkstatt

The Morgenstadt Werkstatt is an annual gathering of cities, companies, researchers and other urban innovators.

Applying several innovative methodologies (Makeathons, Fablabs, Design thinking workshops etc.) ca. 400 attendees collaborate to develop hands-on solutions for city challenges. Morgenstadt partners receive a special admission to the "Werkstatt".

<https://www.morgenstadt.de/de/veranstaltungen/werkstatt-2017.html>

b) Morgenstadt Tools and methodologies

- Morgenstadt City Index (28 indicators for a future-proof urban development)
- Basic Morgenstadt Framework (Indicators & action fields for a full city analysis)
- District development tool (planning tool for connected infrastructures)
- City readiness index (tool for assessing the readiness of a city for successful smart city investments)³ Project Management

The overall coordination of the Morgenstadt Network is realized by the Fraunhofer Institute for Industrial Engineering IAO.

3 PROJECT MANAGEMENT

The overall coordination of the Morgenstadt Network is realized by the Fraunhofer Institute for Industrial Engineering IAO.

Project management tasks include:

- Coordinating the flow of information between all parties involved
- Administration of the City Insights Online Platform
- Organization of events and workshops
- Public relations and communication
- Coordination of contractors and third parties within the project framework

Newsletter, E-Mails, Online Platform

Communication between project members and project management will take place primarily in the form of regular e-mails, newsletters, compressed reports, and briefings on ongoing projects and developments.

Partners in the City Insights Network receive monthly newsletters with information about current research projects, conferences and events, as well as important developments and initiatives in key sectors of interest. Information on organizational issues (workshops, events, decisions) will be disseminated through E-Mails. The results of systems analysis will be communicated in compressed reports and briefing documents.

In addition to the personal meetings and publications an online platform (JIVE) secures the information flow and enables interaction between all project partners. Through the online-platform members have the opportunity to constantly exchange ideas and information and to extend their contact network. Fraunhofer provides up-to-date information and documents exclusively for the project members at the online platform.

The official "M:CI" language is English. Some specific activities, however, must be conducted in German.

- Research activities and project development in German cities will be conducted in German.
- International research activities and project development will be conducted in English.
- Important documents for all project members will be provided in English. German summaries will be provided upon request.

The language used in network meetings and project management meetings will generally be English.

Steering Committee

The "M:CI" Steering Committee represents an equal share of Fraunhofer representatives (4) and project partners (4: 1 city partner, 1 industry partner, 1 planner, 1 consultant). The goal of the steering committee is to achieve the best representation and integration of the interests of research, cities and industry throughout the course of the project. Representatives from industry and city partners on the "M:CI" steering committee will be elected on an annual basis by all project members. The steering committee will determine the allocation of resources for the project development team. It will also stipulate which cities will be visited by the project development teams and project experts.

The Competence Team „Urban Governance Innovation“ of the Fraunhofer Institute for Industrial Engineering IAO has taken on the task of the overall project coordination as well as main parts of the research performances.

Following Fraunhofer Institutes will participate in the research for phase II. This composition guarantees the systemic research approach, because all relevant sectors of research and project development are perfectly covered.

- Fraunhofer Institute for Open Communication Systems FOKUS Berlin
www.fokus.fraunhofer.de
- Fraunhofer Institute for Industrial Engineering IAO, Stuttgart
www.iao.fraunhofer.de
- Fraunhofer Institute for Building Physics IBP, Stuttgart
www.ibp.fraunhofer.de/
- Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg
www.iff.fraunhofer.de
- Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB, Stuttgart
www.igb.fraunhofer.de
- Fraunhofer Institute for Material Flow and Logistics IML, Dortmund
www.iml.fraunhofer.de
- Fraunhofer Center for International Management and Knowledge Economy IMW, Leipzig
www.imw.fraunhofer.de
- Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Stuttgart
www.ipa.fraunhofer.de
- Fraunhofer Institute for Solar Energy Systems ISE, Freiburg
www.ise.fraunhofer.de
- Fraunhofer Institute for Systems and Innovation Research ISI, Karlsruhe
www.isi.fraunhofer.de
- Fraunhofer Institute for Wind Energy and Energy System Technology IWES, Kassel
www.iwes.fraunhofer.de

In addition there are strategic partners of the Fraunhofer-Society bringing their experience and global network into the project. Among others:

- ICLEI – Local Governments for Sustainability
- LSE – London School of Economics Cities Programme
- DGNB – Deutsche Gesellschaft für nachhaltiges Bauen (German Council for Sustainable Building)
- Smart Cities Forum
- Smart City Solutions- fair within the INTERGE

4 MEMBERSHIP CONDITIONS

Morgenstadt is collectively financed by all network partners. Our aim is to create added value (operative/strategic) for all project partners. Usual duration of project membership is two years.

Network Membership Conditions:

The pnetwork articipation fee differs for enterprises/ companies and cities.

Enterprises/companies: 37.500 EUR p.a.

Costs cover all network activities and joined research. Included are 2 bilateral workshops between the partner and Fraunhofer.

Start-ups can participate at our Morgenstadt start-up challenge (see 3.2.4).

Cities: free

Cities are expected to „come with a project“. Morgenstadt partner cities formulate their demand and engage in joined project development together with our network partners.

Cities without a specific project contribute with 7.500 EUR p.a.

Research Membership Conditions:

Individual Morgenstadt research projects are not included in the membership fees. There will be separate agreements on research projects based on the project type, focus, duration and partnership level.

Innovation partnership:

Partners can opt for a Morgenstadt innovation partnership with Fraunhofer. This includes bilateral research and development as well as an individual Fraunhofer expert key account, helping to leverage the network benefits for your city or company.

Innovation Partnerships start at 50.000 EUR (Cities: 25.000 EUR) and can be designed according to the needs of the partners.

**Fraunhofer Institute for Industrial
Engineering IAO**

Nobelstrasse 12
70569 Stuttgart, Germany

Contact

Alanus von Radecki
Project director
Phone +49 711 970-2169
alanus.radecki@iao.fraunhofer.de

Dr. Natalie Pfau-Weller
Project Manager
Phone +49 711 970-2196
natalie.pfau-weller@iao.fraunhofer.de

www.morgenstadt.de