

Introduction

In 2011, we¹ founded the sustainocratic² AiREAS cooperation with the objective of taking responsibility as a community for the co-creation of healthy regions, using air quality, human health, and regional dynamics as measurable guiding principles. With local health as our leading drive, the cooperation was uniquely set up through the direct multidisciplinary involvement of the four pillars of society:

- local citizens,
- local government,
- creative entrepreneurial innovators,
- scientists/educators.

This way of sharing responsibility around core values of human existence, of which Health is one example, had been previously defined and settled in the STIR Foundation. STIR was established in 2009 in Eindhoven to (re)define human complexities for sustainable human progress through value-driven experimentation. It found its first practical application in the context of health related to air quality and human dynamics. The resulting project-driven type of multidisciplinary co-creation was given the formal name of AiREAS. The method of regional co-creation, driven by core values, was coined Sustainocracy,³ representing a new way of addressing our democracy by accepting that our core values should lead the way in defining innovative community priorities. In 2015, external researchers⁴ recognized the practical execution of AiREAS Eindhoven as a peer 4 regional development, an evolutionary step representing an awareness-driven eco-system of

¹AiREAS' founders are Jean-Paul Close and Marco van Lochem.

²“Sustainocratic” represents a multidisciplinary way of working on natural core human values defined in Sustainocracy.

³*Sustainocratie, de nieuwe democratie waarin de mens centraal staat*—October 2012/MultiLibris.

⁴Venture Spring report about Smart City projects in Eindhoven—October 2015.

value-driven co-creation.⁵ At the same time, the cooperation received the European VINCI Energy Innovation award⁶ as a group and individually in the category of partnerships.

The vision, experimental steps, theoretical referencing with other scientific sources, and the achievements that sprang from all of these are being published worldwide through the channels of Springer⁷ and New Horizons.⁸



A copy of the Vinci Award

Citizen Involvement

This particular book describes the experience obtained in the field of spurring citizen involvement and participation in taking responsibility for regional core values such as health and air quality, representing a new, innovative societal context⁹ for all involved. The research done shows the difficulty for human beings in relating to new paradigms, no matter how important those paradigms may be for them, especially when surrounded by a dominant socioeconomic reality that does not necessarily relate directly to core values. It also describes the challenge that this type of regional development contains for the entire community, its structures, leadership, socioeconomic context, and the way citizens interact with each other, with governance and with the environment.

The research was conducted in 2015 and the first months of 2016 in combination with phase 1 and 2 of the AiREAS healthy regional development in Eindhoven. These first two phases were as follows:

⁵Level 4 global co-creation defined by the Presencing Institute.

⁶https://www.vinci.com/vinci.nsf/en/newsroom/pages/collective_intelligence_supporting_urban_air_quality.htm.

⁷The Spiritual Dimension of Business Ethics and Sustainability—Springer 2015.

⁸Sociology and Anthropology 3(6): 311–317, 2015, Redefining human complexities, New Horizons.

⁹Context differentiation between money dependence and co-creation for core values.

- Phase 1: Making visible the invisible¹⁰ (published through Springer in 2016) through a fine maze real-time measurement infrastructure in Eindhoven for air quality and human exposure, referred to as the ILM,
- Phase 2: Linking air quality with human health and lifestyle, referred to as the POP (Proof of Principle). The POP evolved into two fields of investigation:
 - Noninvasive medical research and lifestyle investigation/POP1
 - Lifestyle and human persuasion for lifestyle innovation/POP2.

We decided to publish the two fields of investigation of the POP separately, as each contains its own field of expertise, interest, and newly acquired insights. So, POP2 (civilian participation) became phase 3, while POP1 (medical research) was named phase 2. The preliminary phases (ILM and POP1) were necessary to provide toolkit data and knowledge as input for professional interpretation and open public communication. The key objective was to address the population with the invitation to innovate our lifestyles and daily instruments of use to improve our health and environment.

Complex Team Effort

When we started the Proof of Principle, we had the desired end results in mind but no idea as to how we would get there. The civilian participation part was especially filled with desires and expectations, but also a total lack of knowledge. We needed to build up experience along the way. Each step would become decisive in regard to the next ones that would need to be taken. Whatever we planned was always challenged by a different outcome than expected. Adapting, changing, or adjusting our approach continuously became part of a co-creation routine that gave us insight for enlargement of the programme in Eindhoven, as well as other regions. This adaptive flexibility was also the basis for the outcome, which proved to be much more diverse and complete than could have been anticipated.

Phase 3, hence, has provided us with unique know-how about and insights into human behavior, influences, and participation in processes of change. We also learned a lot about the way surroundings influence the behavior of people, personal leadership, perception, and the effect of awareness on people as to whether or not to take initiative. We learned about human motivation, persuasion, passive and active innovation, responsibility, and the stimulus of human productivity, including entrepreneurship. The living lab setting was our own city of Eindhoven and its surroundings. A whole new reality revealed itself to us, together with the complexity of dealing with change and value-driven innovation.

¹⁰http://link.springer.com/chapter/10.1007/978-3-319-26940-5_3.

The team that conducted this particular POP2 research consisted of:

- Nicolette Meeder—personal interviews and feedback gathering
- John Schmeitz—database development, analysis, and reporting
- Jean-Paul Close—team coordinator and overall researcher of behavior, entrepreneurship, and change.

We had the expert support of three sources of information and feedback:

- The open data from the ILM near real-time air quality measurement system
- The POP1 medical research team, consisting of Dr. Eric de Groot and Dr. Pierre Cluitmans
- Jaap Ham—assistant professor at the Technical University of Eindhoven for persuasive technologies and communication.

The following research environments in Eindhoven were all eventually used during the course of 2015 to get persuasive interaction with civilians, students, researchers, innovation, and technology:

- The phase 1¹¹ mobile App experiment, based on the ILM
- The phase 2 proof of principle of health and lifestyle research—POP1
- Hackathon/creativity with open data
- Participative education through the STIR Academy with Erasmus+
- Multicultural addressing of subgroups in the city
- The backpack lifestyle research
- The marathon event in Eindhoven.

Each of these environments brought their own unique context and experiences, which are described in separate chapters. Altogether, they provided a solid foundation for peer 4 regional development and stimulus of local productivity, civilian participation, and fundamental changes in the functioning of the city. The project also gives us insight into a community that arises around new common values such as health and environmental awareness, and how to deal with the securities that maintain cohesion and progress when money is no longer the driving force.

The method used for this research was therefore:

- Use the core values of health, air quality, and lifestyle as the dot on the horizon
- Consider the entire city's population to be partners in the healthy city objective
- Connect a multidisciplinary team to the persuasion for improvement, using local research as a tool for triggering innovation
- Find ways to connect with the complexity of a fully operational society to gain as much insight as possible into behavior, consequences, and support for a paradigm shift toward caring for health (proactive) rather than trusting health care (reactive)

¹¹AiREAS phase 1, making visible the invisible, Springer 2016.

- Determine how to connect with the population to enhance such a paradigm shift using positive feedback, innovation, and communication
- Dynamically cluster our partners around the experimental environments that we encounter along the way and which would eventually determine our own learning curves.

Within this framework, we could experiment with an open mind, analyzing our progress through forward driven initiatives and backward interpretation. Our learning curve about citizen participation within the overall abstraction of developing core human values was goal using air quality, human health, and human dynamics as quantifiable instruments. We had the expected and financial resources, now we needed to define scenarios to do our experiments within the fully operational society.

References

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