Real estate development and the influence of impact investments

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The real estate development industry is witnessing a paradigm shift from traditional to responsible, sustainable and impact investments. Emerging regulations are driving the process of disclosing the sustainability performance addressing decarbonization, circular economy or biodiversity among other things. The challenge is to find the balance between directing capital towards these measures as well as managing and reducing the Environment, Social and Governance (ESG) risks to while ensuring competitive returns.

The purpose of our study was to identify the strategies and techniques most effecitve in minimizing the trade-offs between environmental and social impact on the one hand and financial return on the other. An extensive literature review and analysis of existing impact investments frameworks from finance and real estate development fields was performed. In the past, investors were willing to accept a lower financial yield when creating impact. However, results show that there is significant potential for digitalization and entrepreneurship to be used in conjunction with the real estate development process. Here a basis could be established for an integrative new framework to generate innovative impact solutions by taking more risks.

Advancing impact investments

One of the most frequently hypothesised outcomes is the channelled use of data for impact investments generated by digital twins and networked technologies. Three main outcomes of using digitalization can be identified to manage and potentially eliminate the trade-offs between high impact and financial returns:

- Generating relevant portfolio data for impact creation and management by adopting established and emerging technologies (e.g. As-Built-BIM for lifecycle management, Smart Building Automation, GeoBIM, Digital Twins of the portfolio with live sensor data, Extended Reality)
- Using emerging platforms to connect different impact relevant data sets over the lifecycle and stakeholders along the value chain to enable collaboration (Common Data Environment (CDE) as a 'single source of truth')
- Analysing impact-relevant data with emerging digital capabilities to increase transparency into the environmental and social impact and the relation to financial return (Data analysis and simulations of trade-off scenarios based on impact parameters, automated impact benchmarking, use of AI algorithms)

Tools and frameworks

In the transition to a new economy for the impact investment market, the real estate development process and the Theory of Change framework play an important role in driving the change when enabled by the emerging digital technologies and PropTech solutions. In the figure, the existing real estate and finance frameworks identified in the literature review are mapped and aligned to the impact investment spectrum.

The novelty of the approach comes from dealing with the contradiction of making the goals of social or environmental impact compatible with profit. Digital entrepreneurship can play an important role in enabling the transition to a new economy for the impact investment market in real estate development. ∎
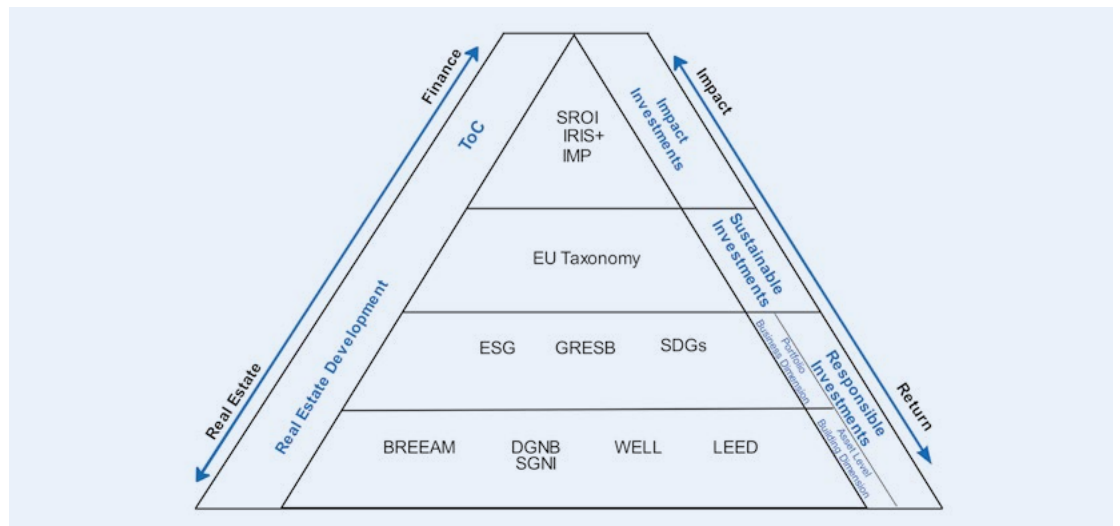

Classification of tools and frameworks along the impact to financial returns spectrum for real estate development projects

Food for Care

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Kann Technologie helfen, Verpflegung in Alters- und Pflegeheimen trotz Finanzdruck und Fachkräftemangel flexibilisierter und bewohnendenzentrierter anzubieten? Das war die Fragestellung, welche wir dank des ZHAW-Kompetenzzentrums für Technologien in der Gesundheitsversorgung «GEKONT» in einem interdepartementell zusammengestellten Team angehen konnten. In einer Vorstudie wurden zuerst Expert:innen befragt und anschliessend eine Umfrage durchgeführt. Die Vorstudie hat gezeigt, dass in Heimen ein grosses Interesse zum Thema Ver-

pflegungsleistungen besteht. Allerdings wurde auch klar, dass Verpflegung nicht für sich allein gedacht werden kann, sondern in Abstimmung mit diversen weiteren Aspekten untersucht und weiterentwickelt werden muss. Nach der kleinen Vorstudie ist vor der nächsten grossen Hauptstudie … Wir bleiben dran!

Der detaillierte Schlussbericht der Vorstudie kann heruntergeladen werden:
➔ **zhaw.ch/ifm/food-for-care/de/**

Grosses Interesse an flexibilisierter Verpflegung in Alters- und Pflegeheimen (Colourbox)

Exploring student social connectedness (SSC) in the hybrid university learning environment (HULE)

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Learning space at the ZHAW-Institute of Facility Management in Wädenswil

Student social connectedness (SSC) has been recognised as a challenge of the hybrid university learning environment (HULE). This is of concern since SSC is integral to the learning process and can both impact health and wellbeing, as well as help in developing social skills and professional identity. In collaboration with the Norwegian University of Science and Technology (NTNU), we are currently addressing these challenges based on our recent literature review in buildings journal. A preliminary study in Autumn semester 2022/23 of a hybrid style master class at ZHAW categorised SSC into 3 indicators: socialising, social support, and sense of belonging. This explored how experiences developed over the semester, finding that SSC was challenging to build in formal learning spaces, particularly online. Students favoured informal interaction in liminal 'waiting' spaces for SSC both onsite and online (often via 'WhatsApp'), such as study breaks or travelling to class. These findings are being developed through indicators and strategies for implementation at ZHAW and beyond, which aim to impact HULE design in the future by more effectively supporting SSC, such as by offering informal social spaces both onsite and online. ∎