



ESR 1

Annette Davis with A.Elghandour (ESR4)

School of Architecture La Salle, Ramon Llull University

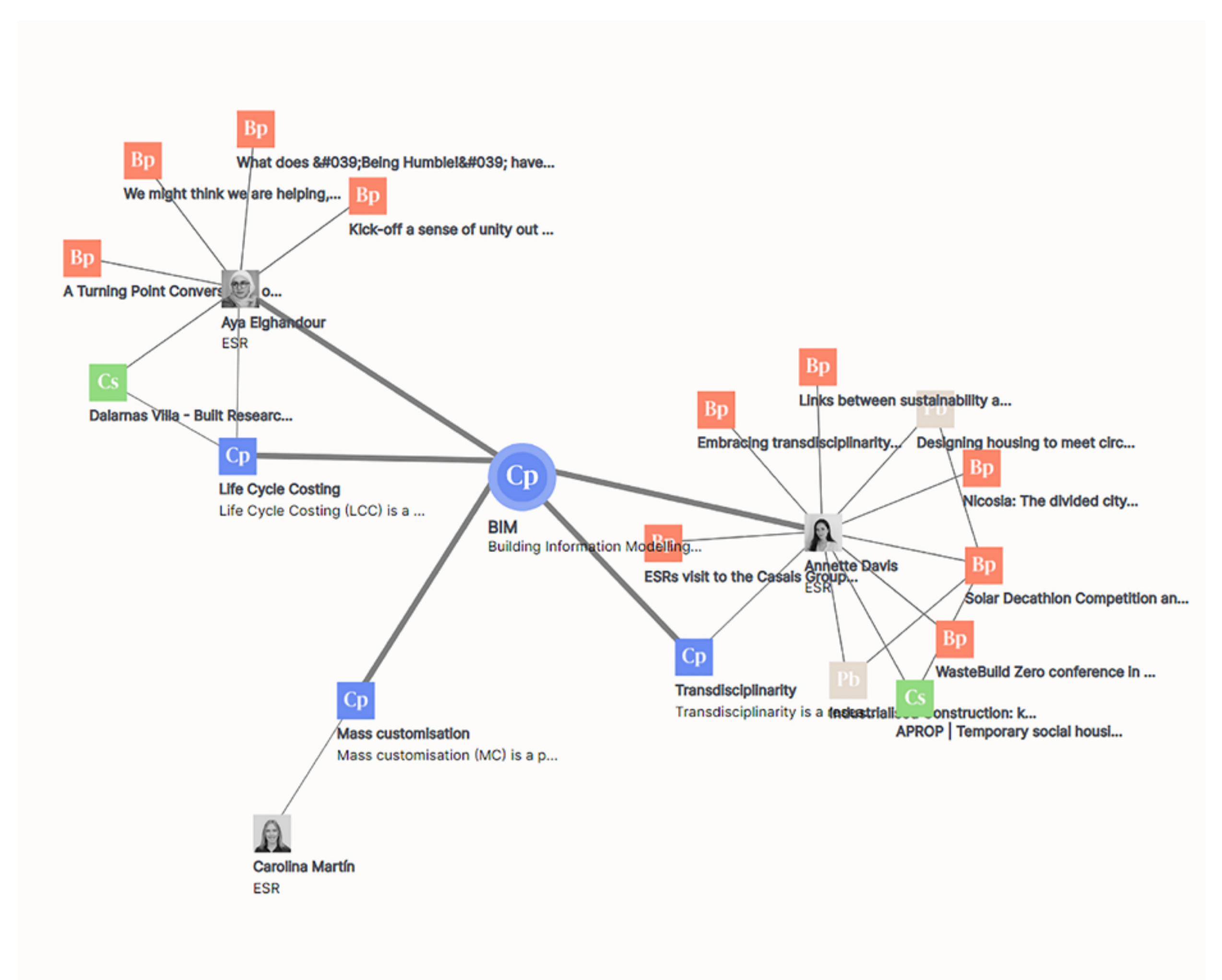
Supervising team
Núria Martí (Supervisor)
Ignacio Guillén (Co-Supervisor)
Alexandra Paio (Co-Supervisor)

Vocabulary

BIM

Research area: Design, planning and building

Building Information Modelling (BIM) is the process of creating a set of digital representations consisting of both graphical and non-graphical data for the entire building cycle. This process involves documenting, gathering, organising, and updating information throughout the whole life cycle of a building from conception to demolition. Beyond the demolition stage, BIM can also support circular principles to manage the reuse, recovery, and recycling-potential of a building. A BIM model uses intelligent objects to store information in the form of three-dimensional geometric components along with functional characteristics such as materials, technical properties, or costs. This forms the basis of a shared knowledge resource to support digital workflows of multidisciplinary stakeholders. BIM plays a crucial role in addressing affordability and sustainability issues in housing; however, many challenges remain for it to be fully and inclusively integrated in practice.



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The second RE-DWELL Summer School on the topic “Inclusive co-design and community planning of affordable and sustainable housing” was held in Valencia from 11 to 15 July 2022, and it was organized by the School of Architecture at Universitat Politècnica de València. The overarching theme of “Inclusive co-design and community planning of affordable and sustainable housing.” The summer school featured invited speakers from various backgrounds, including professional practice, academia, local partner organizations, and municipalities. The programme included site visits to an eco-neighbourhood and to residential housing built by cooperative.



“There is currently a big knowledge gap around LCA amongst architectural practitioners and other stakeholders involved in the delivery of housing, partly due to the time-consuming nature of LCA’s...[n]eedless to say, LCA is an invaluable tool and will contribute greatly to my doctoral research project.”

Annette Davis, blog post “Solar Decathlon Competition and LCA | Secondment with UPV”, October 2022

“Each team had a unique solution to the brief which called for either vertical and horizontal extensions or in-fill proposals. It was not only insightful but a pleasure speaking with true pioneering experts in housing designed for disassembly.”

Annette Davis, blog post “Solar Decathlon Competition and LCA | Secondment with UPV”, October 2022

Blog

Network members activities

ESRs visit to the Casais Group in Portugal REFLECTIONS
Posted on 09-03-2022
Blog post written collectively with Aya Elghandour and Carolina Martín Last month three Early-Stage...
Author: A.Davis (ESR1) [Read more →](#)

Nicosia: The divided city SUMMER SCHOOLS, REFLECTIONS
Posted on 13-12-2021
Due to Covid-related delays, the first RE-DWELL summer school took place last month at the Cypri...
Author: A.Davis (ESR1) [Read more →](#)



ESR 2

Saskia Furman

School of Architecture La Salle, Ramon Llull University

Supervising team
Anna Martínez (Supervisor)
Karim Hadjri (Co-Supervisor)

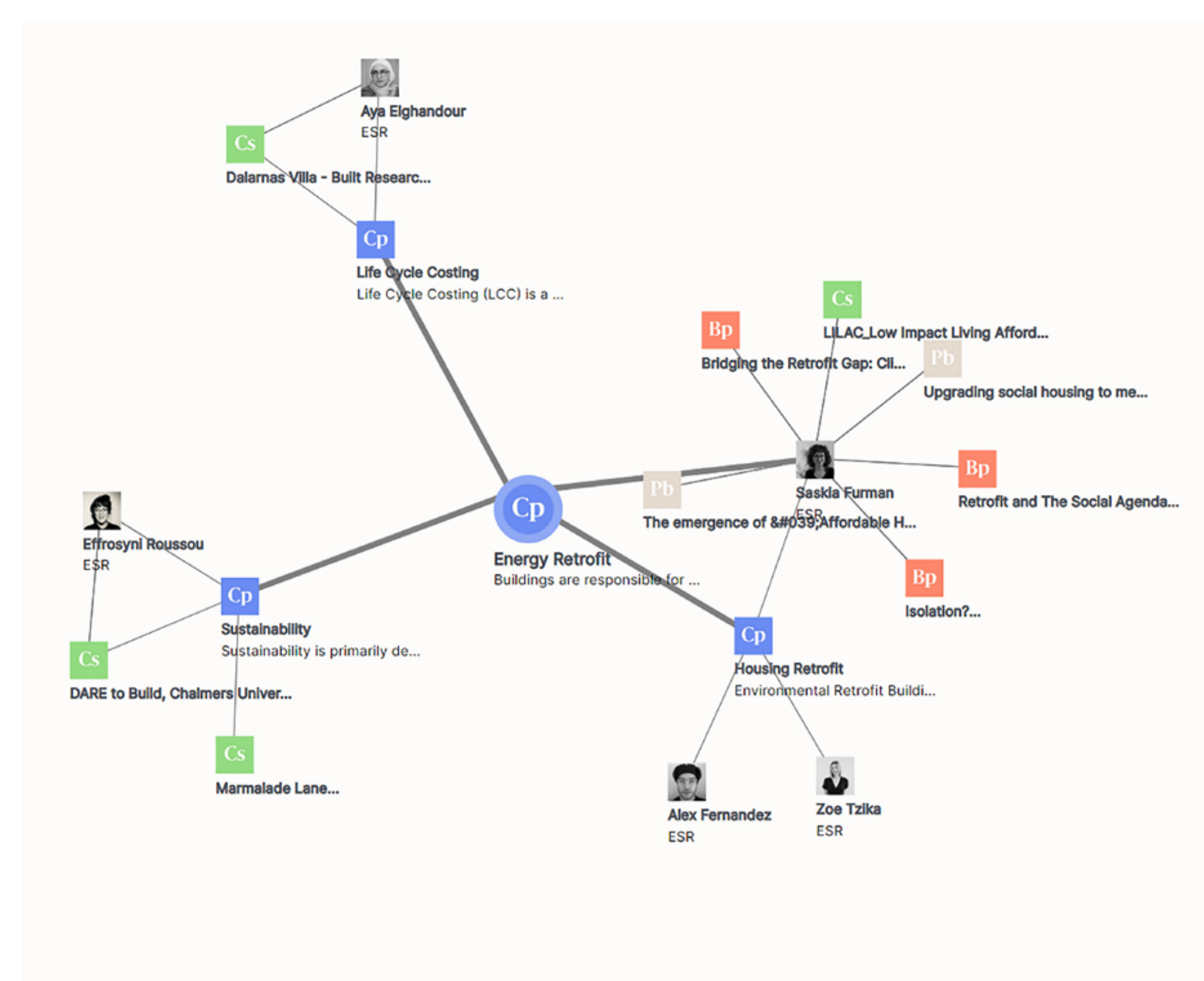
Vocabulary

Energy Retrofit



Research area: Design, planning and building

Buildings are responsible for approximately 40% of energy consumption and 36% of greenhouse gas emissions in the EU. Energy retrofit is also referred to as building energy retrofit, low carbon retrofit, energy efficiency retrofit and energy renovation; all terms related to the upgrading of existing buildings energy performance to achieve high levels of energy efficiency. Energy retrofit significantly reduces energy use and energy demand, tackles fuel (energy) poverty, and lowers carbon emissions. It is widely acknowledged that building energy retrofit should result in a reduction of carbon emissions by at least 60% compared with pre-retrofit emissions, in order to stabilise atmospheric carbon concentration and mitigate climate change. Energy retrofit can also improve comfort, convenience, and aesthetic.



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“Another interesting observation is that not everyone is interested or willing to engage in participatory processes. Innovative housing schemes do not appeal to everyone, cohousing and collaborative housing take a long time and require a certain type of inhabitant who likes to have an active social life. This is a challenge in current times where participation is becoming increasingly important. There should be different models of participation that recognise this reality.”

Leonardo Ricaurte, summary of the discussion held in the RE-DWELL Round-table no. 4, 14 July 2022



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Blog

Network members activities



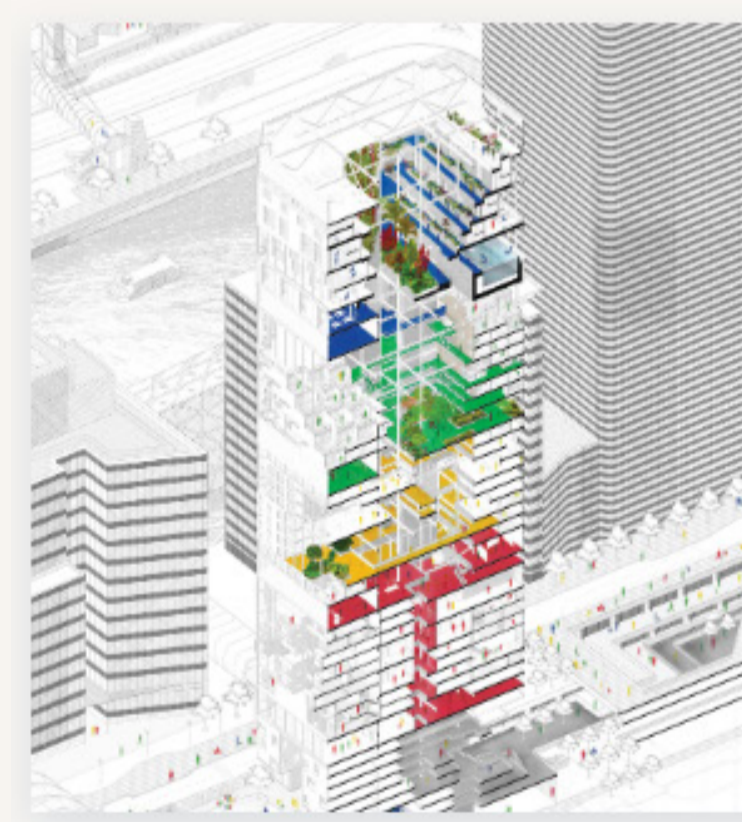
Bridging the Retrofit Gap: Climate, Culture, and Infrastructure | Future Build 2022 | International Women's Day CONFERENCES

Posted on 08-03-2022

Future Build 2022 in London was an inspiring event. While the majority of discussion concerned...

Author: S.Furman (ESR2)

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Isolation? WORKSHOPS

Posted on 26-07-2021

The past few weeks have been some of the most intense, jam-packed and fulfilling of my entire life...

Author: S.Furman (ESR2)

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“The need to consider social objectives together with financial and environmental objectives in sustainable renovation has recently been emphasised.”

Femenias, P., Mjörnell, K., & Thuvander, L. (2018). Rethinking deep renovation: The perspective of rental housing in Sweden. *Journal of Cleaner Production*, 195, 1457–1467

“A deep retrofit project will involve aspects of repair and sometimes renewal of building elements, but primarily, it will involve building improvement, for example the installation of wall insulation where previously no insulation was in place.”

Bright, S., Weatherall, D., & Willis, R. (2019). Exploring the complexities of energy retrofit in mixed tenure social housing: a case study from England, UK. *Energy Efficiency*, 12(1), 157–174