Duysburgh, P., Naessens, K., Konings, W., & Jacobs, A. (2012). Collaboration in a multidisciplinary, distributed research organization: a case study. *Higher Education Policy*, 25(3), 267-288.

Duysburgh et al. (2012) studied how 6 of 16 Belgian multidisciplinary research groups, tasked with projects to innovate information and communication technologies (ICTs), integrate various academic and community members across differing specializations and experience levels using the ethnographic methodology. Duysburgh et al. considered daily operations through two surveys, two workshops, a 1-week observation of work habits and workspaces, and semi-structured interviews.

Multidisciplinary research groups form a Collaboratory, “a center without walls.” Researchers perform research without regard to a physical location. These Virtual Research Environments (VREs) are online tools that facilitate the research process without institutional boundaries. Duysburgh et al. explored whether ICTs facilitate formal and informal research interactions and collaborations. They ask how the research center is organized, what collaboration strategies are used, and how ICTs relate to distributed collaborations.

Duysburgh et al. found that team growth led to the differentiation and specialization of members and increased the number of projects. This rapid growth challenged the coordination and cohesiveness of the group. Scaling increased budgets and, in turn, enlarged the network and goals set by the group. Multiple funding sources gave stability and greater possibilities but a greater burden to administrative and senior researchers. Duysburgh et al. found that between-group competition led to specialization and differentiation. Additionally, members within a group also became more specialized, separating groups into different clusters. Team pace and public exposure required an increase in pace over the procedure pace of the university, causing distancing between the research groups and the universities.

Teams contained three hierarchical levels: junior, senior, and head. Additionally, teams had employees with supportive roles, such as secretaries and administrators, who were not included in the hierarchical system. Leaders set the vision and personality of the team culture, leading to the level of the member’s sense of belonging. High turnover caused a negative identification of the group. Junior researchers were less involved, even denied access to information, and understood the project and roles of their teammates less. Duysburgh et al. propose that connecting the network between junior researchers and others involved in the project will help connect them to the fundamental research activities done by their colleagues.

Groups generally had flexible work policies regarding the hours required in the office. While face-to-face interactions dominated most teams, email was the most common mode of choice for communication, and instant messages were used for quick communication. Calling a team member was usually a last-ditch effort for junior members to contact their seniors. Overall, spatial proximity encourages collaboration. No single software fulfilled the needs of a team, and a series of websites and tools were used, which led to confusion. Version control systems were an issue for teams. Project websites were viewed negatively; they were seen as administrative tools and not workspaces. Video conferencing systems facilitated shorter, goal-oriented consultations and had a positive effect. [Note the year of the publication]

Between the teams, collaboration began competitively. “Some research groups (and companies) see IBBT merely as a source of funding,” and “partners tend to participate in projects only to obtain funding” as there is little gain from collaborations with other teams.

The challenges of interdisciplinary work require strong project management. Members from different paradigms struggle to understand how others will contribute to a project or translate their findings. Duysburgh et al. propose that the solution to this is strong project management and leadership. There is a difficult relationship between specialization and collaboration.

Plenary project meetings work to bridge the gap between specialties but cause missed opportunities for collaboration. Instead, a common topical interest should work towards a shared research agenda for the medium range. Meetings should be more frequent and shorter.

This is a case study and does not directly generalize to other research centers.