LEED Empirical Evidence in Northern and Southern Europe

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Abstract : The Leadership in Energy and Environmental Design (LEED) green building rating system is recognized in Europe. LEED uses regional priority (RP) points that are adapted to different environmental conditions. However, the appropriateness of the RP points is still a controversial question. To clarify this issue, two different parts of Europe: northern Europe (Finland and Sweden) and southern Europe (Turkey and Spain) were considered. Similarities and differences in the performances of LEED 2009-new construction (LEED-NC 2009) in these four countries were analyzed. It was found that LEED-NC 2009 performances in northern and southern parts of Europe in terms of Sustainable Sites (SS), Water Efficiency (WE), Materials and Resources (MR), and Indoor Environmental Quality (EQ) were similar, whereas in Energy and Atmosphere (EA), their performances were different. WE and SS revealed high performances (70-100%); EA and EQ demonstrated intermediate performance (40-60%); and MR displayed low performance (20-40%). It should be recommended introducing the following new RP points: for Turkey - water-related points and for all four observed countries - green power-related points for improving the LEED adaptation in Europe.

1

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