

Selection Criteria for Terrestrial Laser Scanners

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Key words: Rock slopes, fracture plane, dip angle, dip direction, photogrammetry, 3D laser scanning, Autodesk 3d studio max

SUMMARY

Economic impacts of urban and infrastructure development The form, extension and structures of settlements and the density of places of work and population determine the costs of the network-related technical infrastructure facilities such as roads, water and energy supply and waste water disposal. This costs have to be paid by the communities, business companies or by the private households. Especially the direct and indirect so-called social costs of urban sprawl are very relevant for the sustainable spatial development. Therefore the direct costs must be estimated and considered very carefully within the planning process on all levels (regional level, local level and level of the building area), to create cost saving and efficient structures.

This task requires a comprehensive approach, which differentiates between investment, operation and maintenance. Furthermore the dynamic development of the settlement and the population has to be taken into account. Not only in many European countries the process of urbanisation is strongly effected by economic and demographic changes. On one hand the settlement areas are still increasing, in Germany about 93 ha per day, and on the other hand the density of households and inhabitants is decreasing dynamically in many regions. This effects escalates the problems and make cost calculations within the planning process indispensable. With view on the different planning levels, strategic and project oriented dynamic calculation models are needed, to achieve cost transparency in case of urban development as basis for rational planning decisions. On this background the paper will analyse the relevant costs of network-related public infrastructure in relation to typical settlement forms and structures of building areas. Guidelines and recommendations for an economic efficient urban and infrastructure development will be discussed.

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