An Asplund space with norming M-basis that is not WCG

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We construct [1] an Asplund Banach space $\mathcal{X}$ with a norming Markuševič basis such that $\mathcal{X}$ is not weakly compactly generated. This solves a long-standing open problem from the early nineties, originally due to Gilles Godefroy. En route to the proof, we construct a peculiar example of scattered compact space, that also solves a question in Descriptive Topology due to Wiesław Kubiś and Arkady Leiderman.

[1] P. Hájek, T. Russo, J. Somaglia, and S. Todorčević, *An Asplund space with norming Markuševič basis that is not weakly compactly generated*, Adv. Math., 392 (2021), paper no. 108041, pp. 22.