Within the project SUSTAIN a universal tool to help deliver sustainability on Europe’s coasts has been developed with the involvement of 12 EU countries. This new tool is based on easily measurable indicators and is applicable to all European coastal regions. Together with a weighting and preference system it allows coastal municipalities not only to measure the present state of sustainability but also to develop a future sustainability vision as well as a development strategy. We present a full application exercise in the German Baltic seaside resort Warnemünde, with the exemplary involvement of stakeholder groups. We critically evaluate results and benefits and show how the system can be linked to the existing QualityCoast destination labeling and award system.