will primarily involve the development of new methods for computing realistic flooding areas for new coastal protection concepts as well as for computing the consequences of damage events.

7.4 Partly-Automated Dune Register (PADR)

Dunes are an essential element of the coastal protection strategy in Mecklenburg-Vorpommern. The purpose of the PADR is to promptly quantify dune break-offs following storm surge events. This involves a comparison of surveyed dune profiles (actual dune profiles) with nominal dune profiles, taking into consideration changes in the shoreline and scarps. This will permit the development of partly-automated routines, i.e. routines for incorporating new dune surveys with wide area coverage, e.g. by means of airborne laser scanning following a storm surge event.

7.5 Measurement Surveys

Land and sea surveys along the shoreline and the backshore as well as at sand extraction points will be extended by measurements using side scanners, fan echo-sounders, boomers and ammunition detectors. The survey results will provide input data for problem-oriented morphological, sedimentary and biological monitoring programmes, taking special account of the dynamics/variability of the coastal zone. With regard to the design and planning of coastal protection structures, the results of these monitoring programmes will serve to indicate the effects of coastal protection structures on the nearshore zone, thereby providing a sound basis for forecasting the influence and mode of action/effectiveness of these structures in the coastal defence system.