# Sewer manhole with and without corrosion protection in the channel after 15 years





Synthetic lining - long-term corrosion protection for concrete manholes

### Coating – equivalent to the PREDL base-liner?





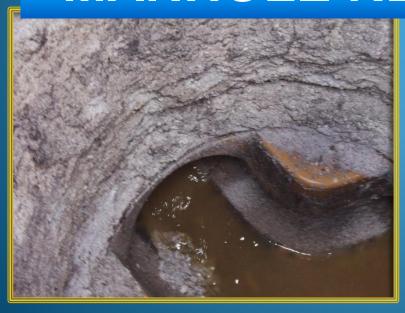
#### Disadvantages of the coating:

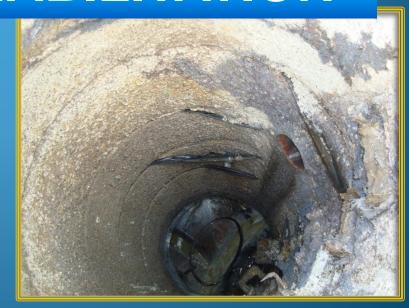
- Extensive preparation (clearing work, drying....)
- The manhole does not gain any structural strength
- Often insufficient strength of the bounding laminate





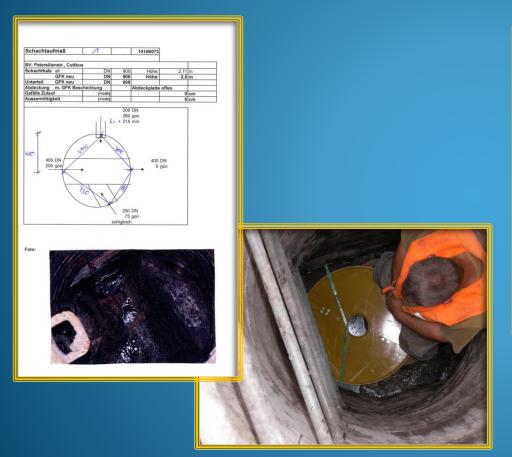
## MANHOLE REHABILITATION





## Modelling of the existing manhole – most important premise for every manhole rehabilitation

#### **Manual measurement**



#### Laser scan



High error rate as manholes are often not walkable or only with great difficulty

The most modern technology for a precise modelling

### Laser scan – 3D modelling of the old manhole

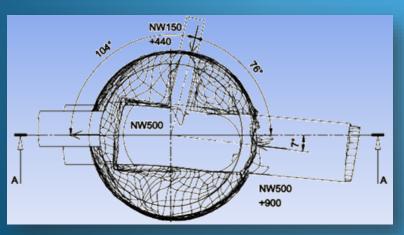






#### Laser scan – 3D modelling of the old manhole

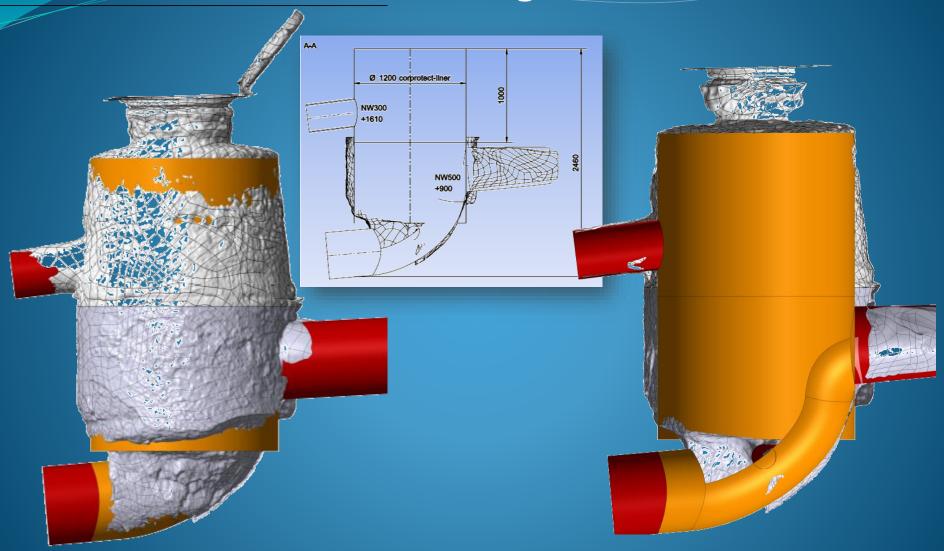






Laser scan – Modelling of a manhole that needs rehabilitating in Jersey

#### Laser scan – 3D modelling of the old manhole



The scanned data allows a precise processing of the rehabilitation elements.

#### Manhole rehabilitation procedures by PREDL GmbH



Rehabilitation with CORPROTECT PP lining (coverslab off or through entry hole)



Rehabilitation with GRP base-liner + GRP shaft lining 3 mm



Rehabilitation with GRP base-liner + CORPROTECT liner



Manhole in manhole solution with GRP manhole base + GRP pipe







Large choice of base-liners from the wide PP standard programme range



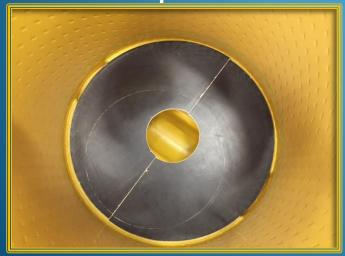


Rehabilitation components: PP base-liners, CORPROTECT PP liner also for coverslab, EPS shuttering





Rehabilitation with CORPROTECT
In an open field or through the entry hole





Abstützung der CORPROTECT-Auskleidung mit EPS











**Before** 

afterwards



