EUVN_DA:
EUREF ACTION for
EUVN DENSIFICATION:
STATUS REPORT

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A REMINDER: WHAT IS EUVN_DA?

JOINT EFFORT OF THE EUROPEAN NMA’s TO ESTABLISH A HOMOGENEOUS, DENSIFIED CONTINENTAL GPS/LEVELLING NETWORK RELYING ON THE EXISTING EUVN SOLUTION.

REALIZATION OF THE DM-ACCURACY CONTINENTAL HEIGHT REFERENCE SURFACE CONSISTENT WITH ETRS89 AND EVRS. (RESOLUTION #4 DUBROVNIK).
WHY WE NEED DENSIFICATION?

IHDE ET AL, 2001

LONG WAVE
- GEOID
- LEVELING

OUTLIERS
- EXCENTRICITY

THE SPARSE EUVN AND THE EGG97 IS NOT ELIGIBLE FOR THE CONTINENTAL SUB-DM HEIGHT REFERENCE SURFACE!
SENSITIVITY OF THE EGG97 - EUVN COMPARISON
GENERAL EUVN_DA RULES I

NETWORK GEOMETRY: (to minimize workload)

- **M**ean site separation: 100-50 km
- **P**ossibly use existing GPS and/or levelling markers
- **S**pecial interest on “problematic” regions
GENERAL EUVN_DA RULES II

DATA REQUIREMENTS

GPS MEASUREMENTS
- REFERENCE SYSTEM (ETRS89 or ITRFyy - EPOCH)
- OBSERVATION SESSION <24 hours ALSO ACCEPTED!

LEVELLING

THE EUVN_DA MARKERS SHOULD BE CONNECTED TO UELN (EXISTING MEASUREMENTS MAY BE USED)

DATA SUBMISSION

TO EUVN\|UELN DATA CENTRE
- CONSISTENCY CHECK | EVALUATION
- COMPILATION OF NATIONAL SOLUTIONS
DATA COLLECTION

**Action_A**  **DECEMBER 2003**
- CLARIFICATION OF PRESENT EUVN DISCREPANCIES
- COLLECTION OF EXISTING GPS&LEVELLING DATA

**Action_B**  **DECEMBER 2005**
- NEW GPS&LEVELLING MEASUREMENTS
- CREATION OF THE HEIGHT REFERENCE SURFACE (V 0.1)
SUBMISSION FORMS UPDATE!

A SIMPLIFIED EXCEL-BASED TABLE, INCLUDING ALL RELEVANT INFORMATION

<table>
<thead>
<tr>
<th>ID</th>
<th>GPS CRD</th>
<th>UELN nodal point info</th>
<th>EUVN_DA site leveling info</th>
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GPS data details:
Campaign, processing
EUVN_DA
SITE DISTRIBUTION