



AHN IN PERSPECTIVE

THE (IM-) POSSIBILITIES OF DIGITAL ELEVATION DATA
AS
CORE SPATIAL DATA

STEFAN J. FLOS MMI - SJF PROJECTS & SUPPORT



INTRODUCTION

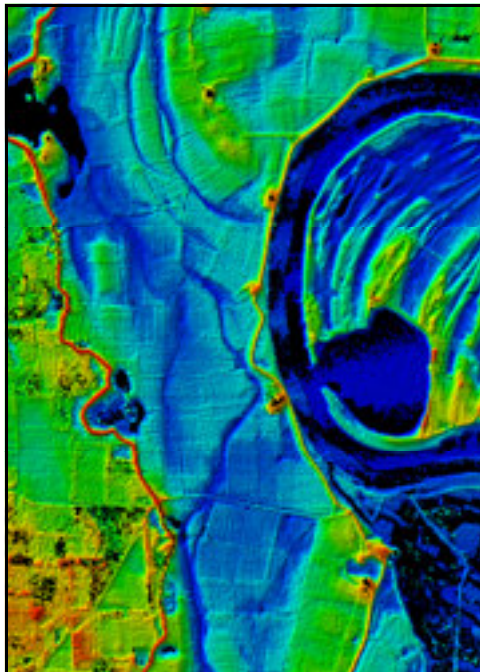
- STEFAN FLOS
- BACKGROUND
- ELEVATION DATA ?
- MUSIC... 🎵



- 1 Funiculi funiculà (Turco-Denza) 2:36
 - 2 Dicitencello vuie (Fusco-Falvo) 3:27
 - 3 Maria mari (Russo-Di Capua) 3:23
 - 4 Voce 'e notte (Lardini-De Curtis) 4:12
 - 5 Canta pe' me (Bovio-De Curtis) 3:23
 - 6 O surdato 'namurato (Calitano-Cannio) 2:32
 - 7 Comme facette mammeta? (Capaldo-Gambardella) 1:59
 - 8 Santa Lucia luntana (Mario) 3:32
 - 9 Fenesta che lucive (Genaino-Paolella-Cottra) 3:43
 - 10 Tu ca nun chagne (Bovio-De Curtis) 2:39
 - 11 'Na sera 'e maggio (Pisano-Ciaffi) 3:22
 - 12 Passione (Bovio-Togliacferri-Valente) 4:16
- Orchestra and Chorus ■ Franco Potenza, chorus director
 Franco Ferrara, conductor
 (Recorded November/December 1958, Italy)

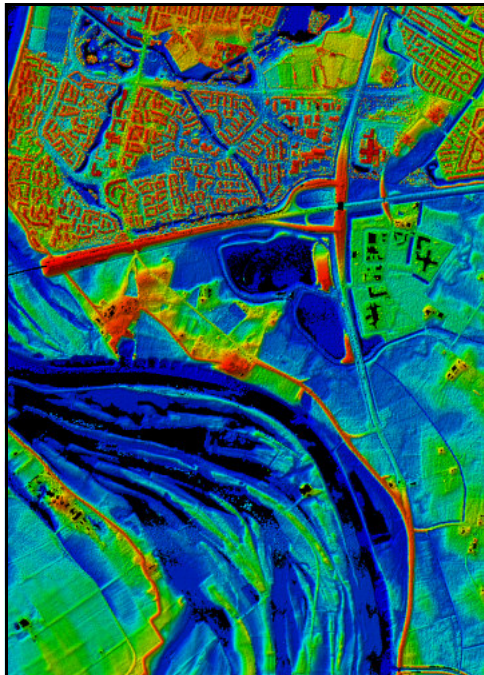
INTRODUCTION

- STEFAN FLOS
- BACKGROUND
- ELEVATION DATA & MUSIC...
- MONO - STEREO - SURROUND
- CLASSIC - MODERN POP MUSIC
- 2D - 3D - LOCATION BASED
- IS DIGITAL ELEVATION DATA (AHN) CORE SPATIAL DATA ??



PROGRAM

- BEAUTY OF ELEVATION: AHN
- CORE SPATIAL DATA: REQUIREMENTS
- AHN IN PERSPECTIVE
- FUTURE OF ELEVATION DATA
- CONCLUSIONS & RECOMMENDATIONS



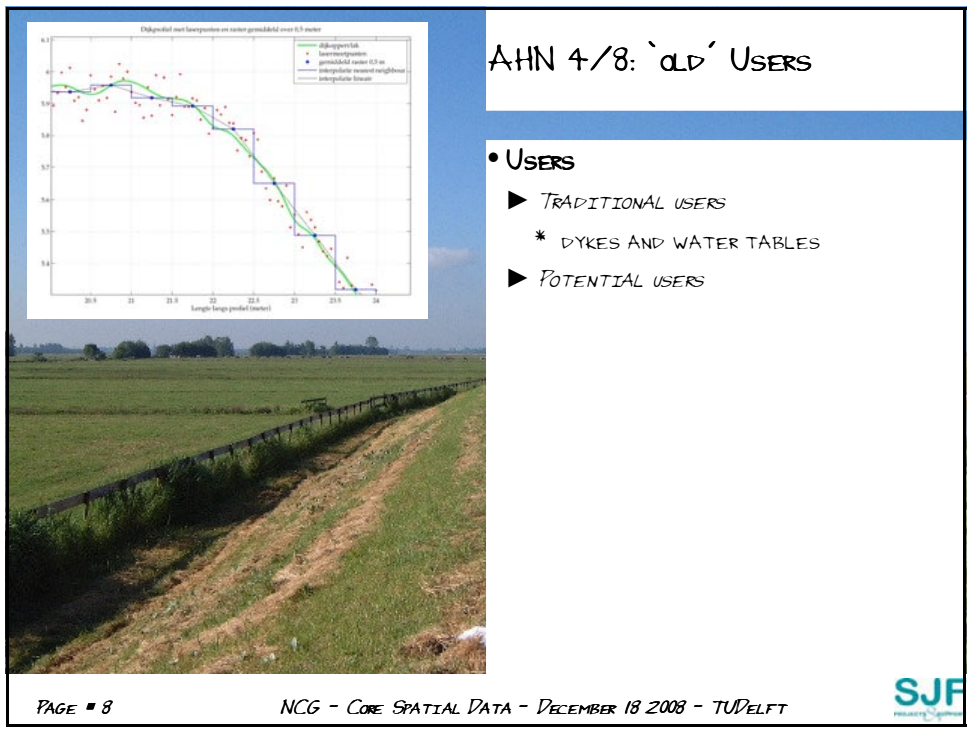
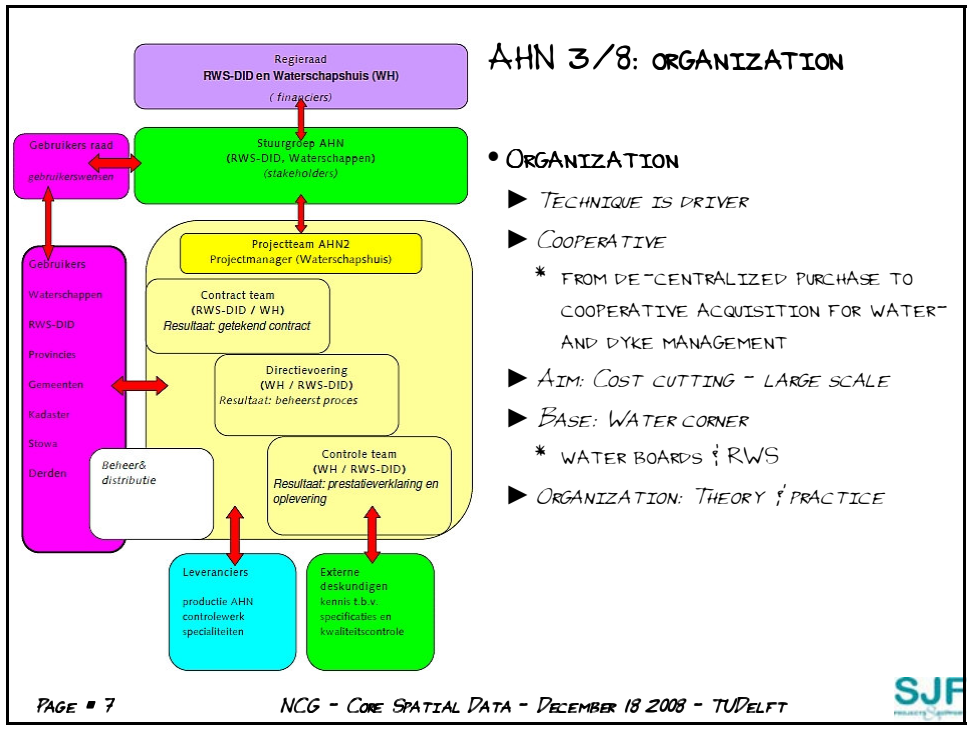
AHN (SYMPHONY) 1/8




- LARGE (NATIONAL) SCALE SCANNING OF DIGITAL ELEVATION DATA
- TECHNIQUE (INSTRUMENTS)
- ORGANIZATION (ORCHESTRA ; CONDUCTOR)
- USERS (PUBLIC)



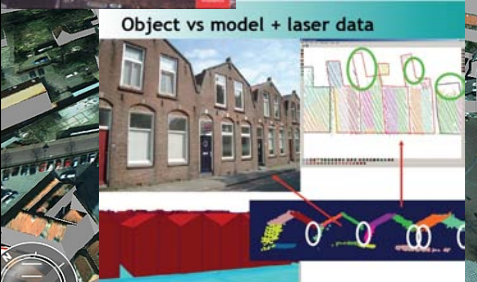
AHN 2/8: TECHNIQUE

- TECHNICAL: HIGH SPEED
 - ▶ ONLY (!!!) 10 YEARS NEW
 - ▶ VERY DYNAMIC (PRICE-QUALITY)
 - * 1997: 1 PT/16M² TO 2007: 10 PT/M²
- ONGOING DEVELOPMENT
 - * NEW SENSORS
 - * BETTER (AND CHEAPER) FILTERING
 - * MULTI-SENSOR
 - * ALTERNATIVES:
 - SATELLITES (RADAR)
 - VIDEO / 3D PHOTOGRAPHY



Object vs model + laser data



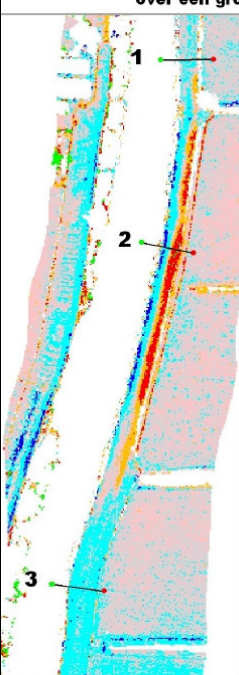
PAGE # 3

NLG - LORE SPATIAL DATA - DECEMBER 18 2008 - TU/Delft

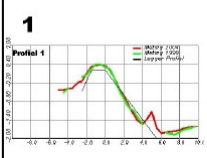
AHN 5/8: NEW USERS

- **USERS**
 - ▶ **TRADITIONAL USERS**
 - * DYKES AND WATER TABLES
 - ▶ **POTENTIAL USERS**
 - * 3D: VISUALIZATION

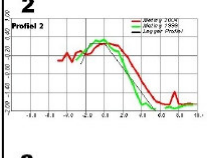
Verschilbeeld laseraltimetrie met dwarsprofielen over een groene kade



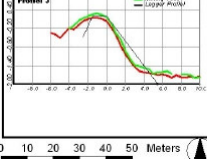
1



2



3



0 10 20 30 40 50 Meters

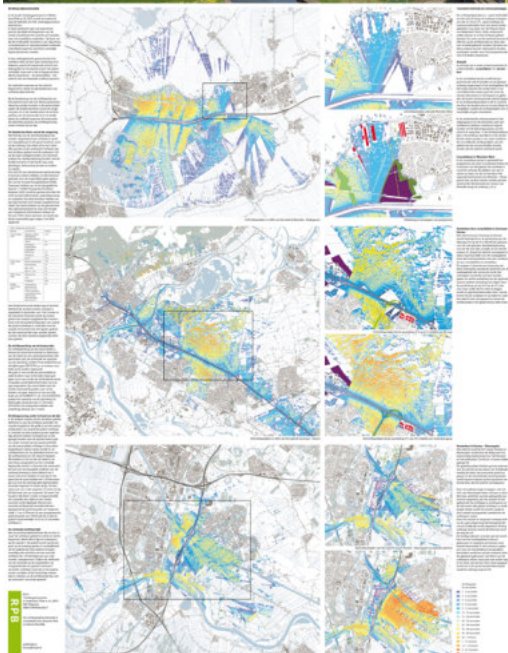
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AHN 6/8: NEW USE

- **USERS**
 - ▶ **TRADITIONAL USERS**
 - * DYKES AND WATER TABLES
 - ▶ **POTENTIAL USERS**
 - * 3D: VISUALIZATION
 - * 4D: CHANGE DETECTION


ZICHTBAARTIJD van snelweguitzichten

AHN 7/8: ADVANCED USE



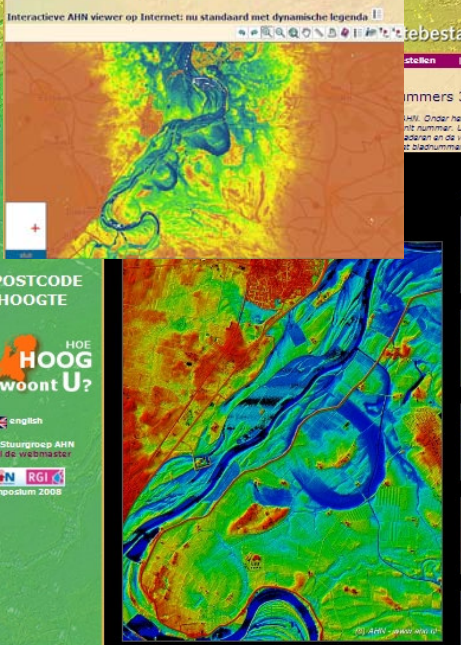
- **USERS**
 - ▶ **TRADITIONAL USERS**
 - * DYKES AND WATER TABLES
 - ▶ **POTENTIAL USERS**
 - * 3D: VISUALIZATION
 - * 4D CHANGE DETECTION
 - * SURROUND 3D

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Interactieve AHN viewer op Internet: nu standaard met dynamische legenda


AHN 8/8: FREE USE

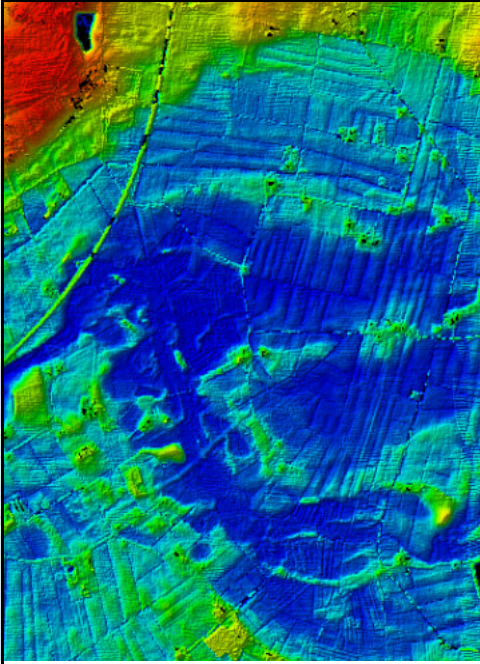


- **USERS**
 - ▶ **TRADITIONAL USERS**
 - * DYKES AND WATER TABLES
 - ▶ **POTENTIAL USERS**
 - * 3D: VISUALIZATION
 - * 4D CHANGE DETECTION
 - * SURROUND 3D
 - * AVAILABILITY: INTERNET (UN-KNOW USE ...)

PAGE # 12

NCG - CORE SPATIAL DATA - DECEMBER 18 2008 - TUDELFT






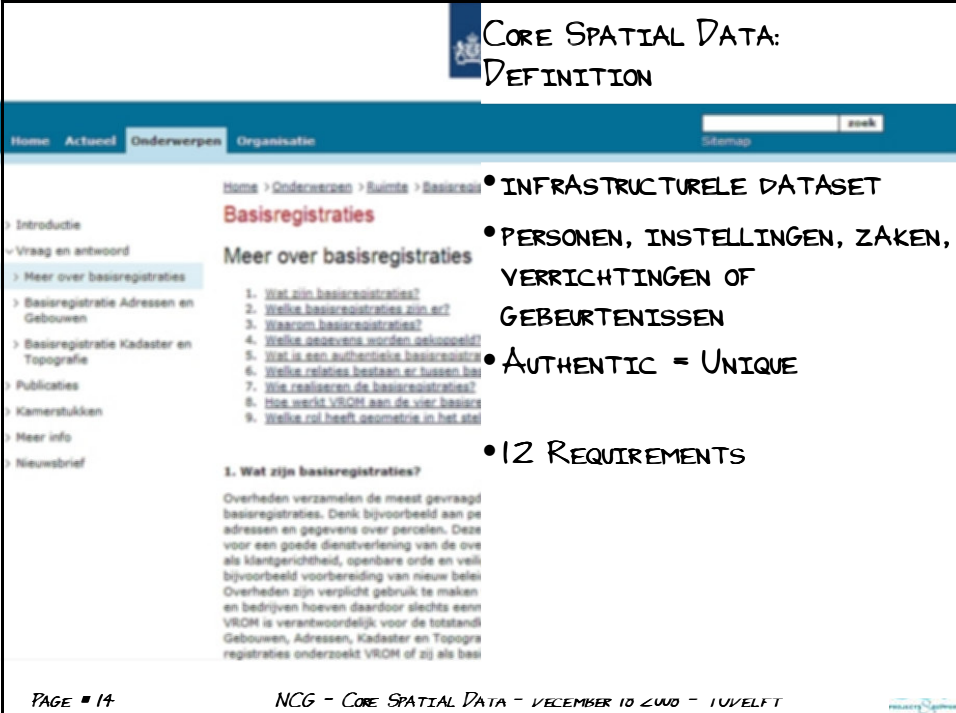
AHN AND CORE SPATIAL DATA

WHAT IS CORE SPATIAL DATA ?

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CORE SPATIAL DATA: DEFINITION



Home Actueel Onderwerpen Organisatie Sitemap zoek

Home > Onderwerpen > Ruimte > Basisregistraties

Basisregistraties

Meer over basisregistraties


- INFRASTRUCTURELE DATASET
- PERSONEN, INSTELLINGEN, ZAKEN, VERRICHTINGEN OF GEBEURTENISSEN
- AUTHENTIC = UNIQUE
- 12 REQUIREMENTS

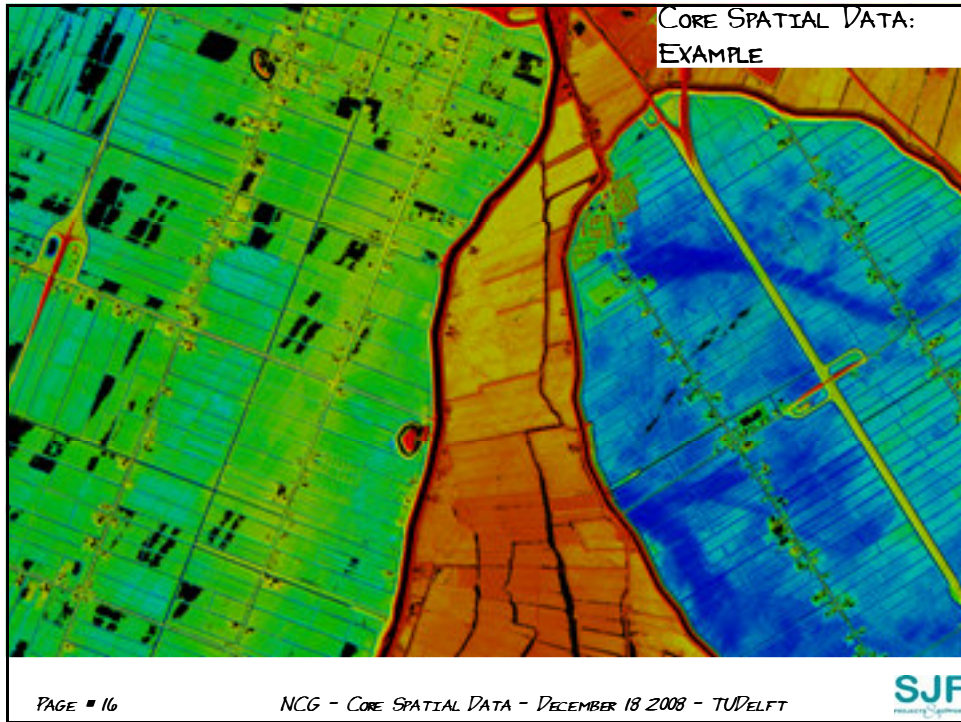
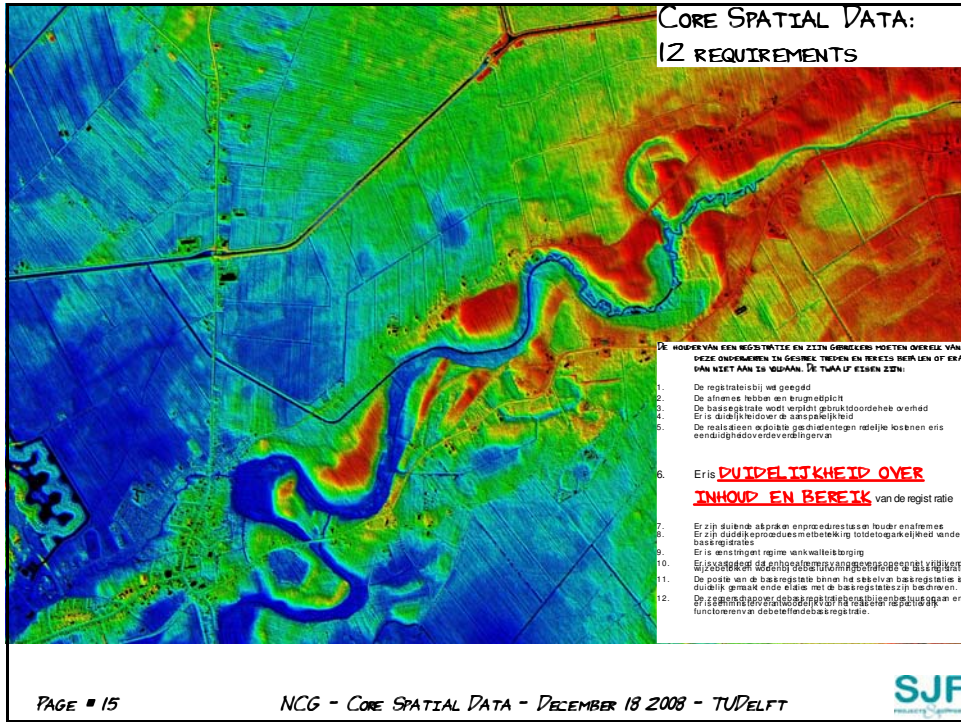
1. Wat zijn basisregistraties?
2. Welke basisregistraties zijn er?
3. Waarom basisregistraties?
4. Welke gegevens worden gekoppeld?
5. Wat is een authentieke basisregistratie?
6. Welke relaties bestaan er tussen basisregistraties?
7. Wie realiseren de basisregistraties?
8. Hoe werkt VROM aan de vier basisregistraties?
9. Welke rol heeft geometrie in het stelsel?

1. Wat zijn basisregistraties?


Overheden verzamelen de meest gevraagd basisregistraties. Denk bijvoorbeeld aan pe adressen en gegevens over percelen. Deze voor een goede dienstverlening van de ove als klantgerichtheid, openbare orde en veil bijvoorbeeld voorbereiding van nieuw belei Overheden zijn verplicht gebruik te maken en bedrijven hoeven daardoor slechts een VROM is verantwoordelijk voor de totstand Gebouwen, Adressen, Kadaster en Topogra registraties onderzoekt VROM of zij als basi

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**AHN AND CORE SPATIAL DATA:
EXAMPLE WATER MANAGEMENT**

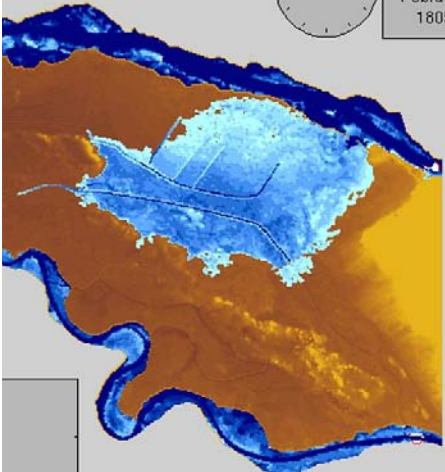


THE FLOOD OF 1805
Flooding of the polder 'Land van Maas en Waal', The Netherlands




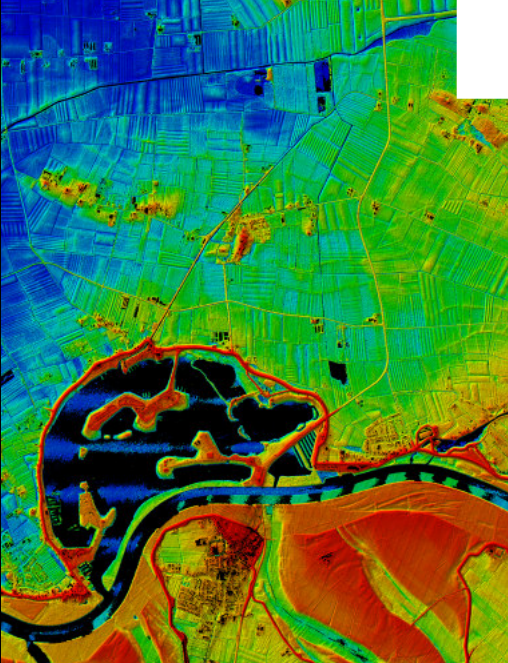
Wednesday
13
February
1805

- **CLIMATE CHANGE**
 - ▶ FLOODS - FLASHFLOODS - DRAUGHTS
 - ▶ INFRASTRUCTURE PLANNING
 - ▶ NEED FOR ACCURATE REALISTIC MODELS
- **USE IN WATER FLOW MODEL**
 - ▶ HYDROLOGICAL CORRECT
 - ▶ VISIBLE AND INVISIBLE OBJECTS
 - ▶ BATHYMETRY (UNDER WATER ELEVATION)
- **COMBINATION OF DATA-INPUT**
- **TECHNIQUE IS NO DRIVER**
- **DEMAND FOR UNIQUE VITAL DATASET**
- **ORGANIZATION IS ENABLER**





bottom (m)






**CORE SPATIAL ELEVATION DATA:
EXAMPLE**

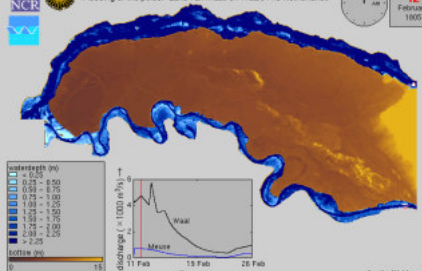




THE FLOOD OF 1805
Flooding of the polder 'Land van Maas en Waal', The Netherlands



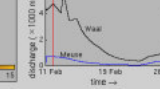
Wednesday
12
February
1805



water depth (m)


0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
2.00
2.25
2.50

bottom (m)



PAGE # 18

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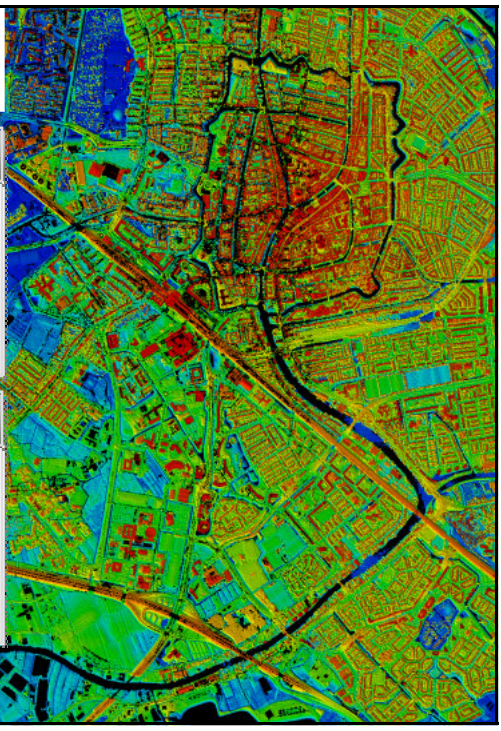
SUMMARY

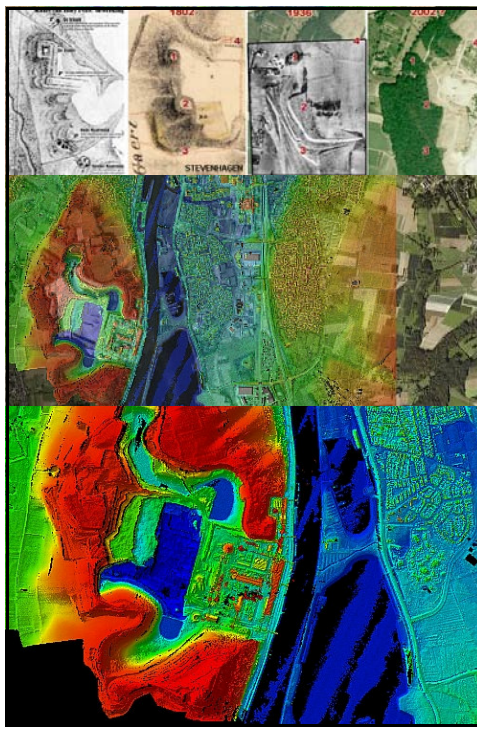
CORE DATA

- DRIVER = GOVERNMENT DATA DEMAND
- UNIQUE - DEFINED END PRODUCTS
- SPECIFIC ORGANIZATION
- TECHNIQUE NOT IMPORTANT

AHN

- TECHNIQUE IS DRIVER
- ORGANIZATION IS COSTS FOCUSED (COOPERATION)
- OUTPUT: BASIC (RAW) PRODUCTS
- FOCUS ON GENERAL DATA DEMAND





DEVELOPMENTS: SUCCESS AHEAD

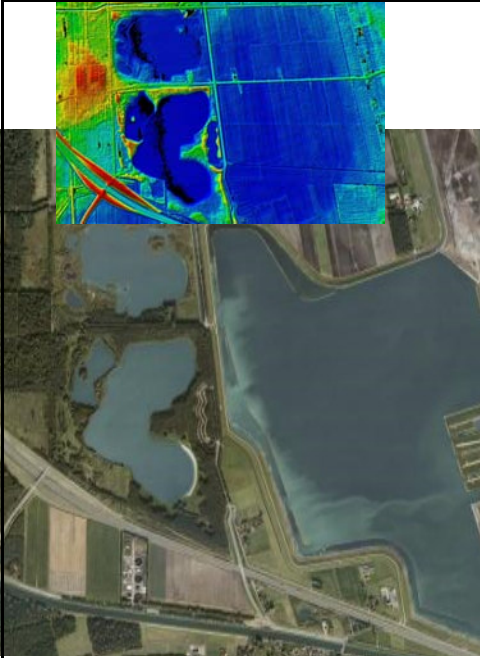
- (TECHNICAL) MATURITY
- STRENGTHENING ORGANIZATIONAL INFRASTRUCTURE
- GROWING USER BASE
- GROWING MARKET VALUE

DRIVERS

- ▶ AVAILABILITY
- ▶ PROMOTION OF USE (GOVERNMENT)
- ▶ KNOWLEDGE BUILDING/SHARING
- ▶ URGENCY


BONUS

- ▶ INTERNATIONAL LEADERSHIP

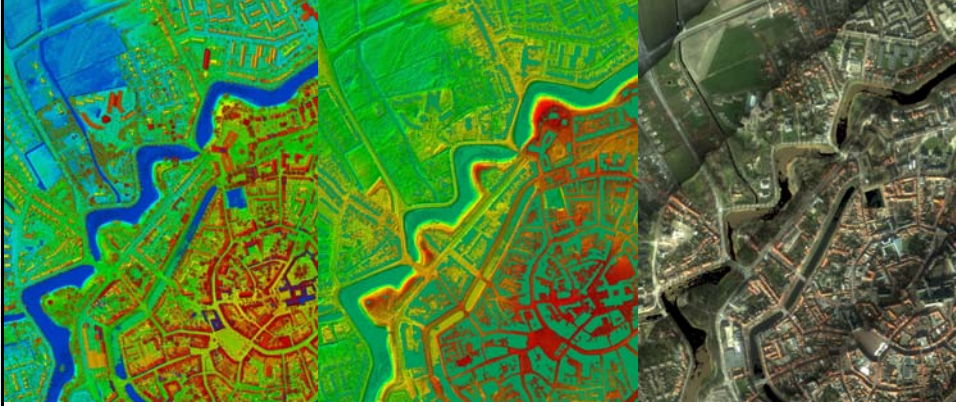


CONCLUSION ; RECOMMENDATIONS

- IS AHN DATA CORE SPATIAL DATA?
- NO !
- END PRODUCTS ARE CSD !
- AHN: VERY IMPORTANT SPATIAL DATA
- IMPORTANT INGREDIENT IN CSD-SETS
- SHARE IT, USE IT AND GET INVOLVED
- TAKE GOOD CARE OF IT
- NATIONAL HISTORIC IMPORTANCE (CULTUREEL ERFGOED !)
- LIKE HISTORIC RECORDINGS: IN 50 YEARS WE WILL STILL ENJOY AHN !!

PAGE # 21 NCG - CORE SPATIAL DATA - DECEMBER 18 2008 - TUDELFT 

DISCUSSION



THANK YOU FOR YOUR ATTENTION

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