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Federal Office of Topography  
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Wabern, Switzerland



**1st EuroSDR Workshop**

**Crowd Sourcing  
for Updating  
National Databases**

# **Break-out session No. 3**

## **Topics: Quality aspects of CS**

Mike Jackson



# Group constitution

- 3 National Mapping Agencies
  - 3 Academics
  - 1 Software industry
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- → Discussion, what should NMA's do in future in respect to CS?

## Two groups for profit from crowdsourcing (additional intelligence)

<u>Update Existing products</u>	<u>Generate new products</u>
Existing high standard products	New simple, fast, low cost datasets
Quality can be assured by hundreds of people	motivating people by rewarding the best crowd sourced data
assigning special people for validation	assigning special people for validation (not for money)
Cost efficiency for NMAs and field surveyors	Products should be tested with prototyping



# What is Quality?

Quality is fitness for purpose.  
Is the purpose that NMA data is used for  
changing?

- Geometric accuracy
- Up-to-dateness
- Navigation topologically correct (i.e. necessary for emergency case)
- Validated, „official“, legally correct
- Metadata (important!)
- Some things are fuzzy, the quality is also fuzzy (e.g. Mittelland)



# Trusting crowdsourcing data

- Analogy with Wikipedia: in former time people just trusted in Encyclopedia Britannica, today they trust in Wikipedia
- Marketing elements, such as brand, influence the trust people have in the data
- People trust NMAs
- We „always“ trust in Photos (aerial or terrestrial)



## Most important questions:

- Measurement of Quality - depends on knowledge of the use of the data →
- Purpose of the data?
- Market needs? (LBS was a market need 10 years before, now we have this technology)
- → NMA's must understand the market / system

# Changing market?

Should NMA's offer different quality levels?

Level 1: Low cost crowd sourced data,  
complementary information (metadata,  
currency), coverage of important areas

Level 2: Expensive „official“ validated data,  
coverage of the whole country

- Dual databases
- Cross referenced databases
- They could converge in future

