

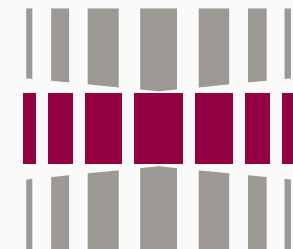


TESS

Transactional Environmental Support System

WP4: Information supply from modelling

**Mari Ivask,
Kristjan Piirimäe
Eve Aruvee**



TTÜ 1918

Tallinn University of Technology

Bruessels, May 25th, 2011





TESS

Overview and context in TESS project of WP 4

**Task 4.1: Creation of data-base of models suitable for
bio-socio-economic predictions**

**Task 4.2: Analysis of gaps in modelling and data
sources**



TESS database: 198 models volunteered and selected

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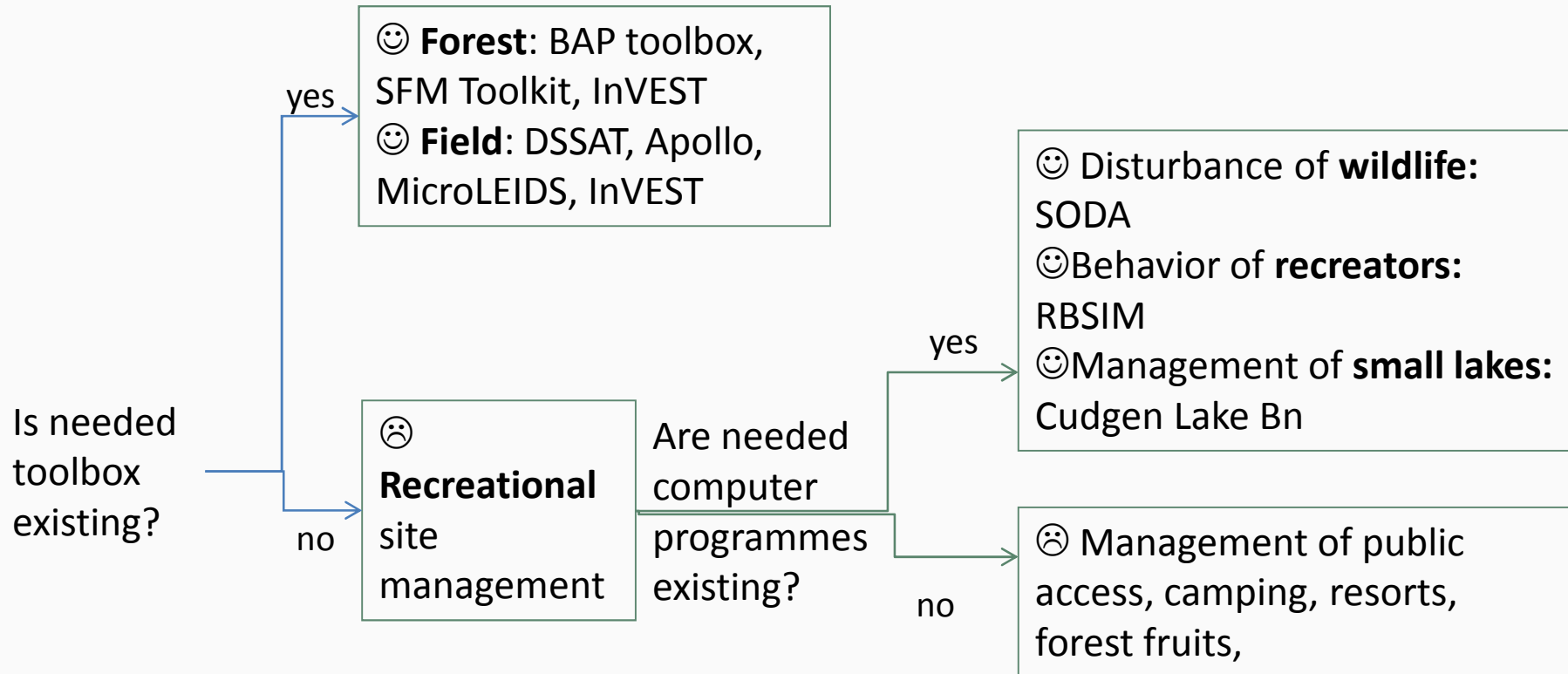
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Model name	Acronym	Web-link	
Soil and Water Integrated Model	SWIM	http://www.scisoftware.com/...	<input type="button" value="Info"/>
SWAT	SWAT	http://www.brc.tamus.edu/swat/	<input type="button" value="Info"/>
Simultaneous Heat and Water Model	SHAW	http://www.geo.utexas.edu/c...	<input type="button" value="Info"/>
GLOWA	Glowa	http://www.glowa.org/	<input type="button" value="Info"/>
Surface Water (Hydrology) Study Site Metadata	Swssm	http://www.epa.gov/ceampubl...	<input type="button" value="Info"/>
Retention Curve Program for Unsaturated Soils	RETC	http://www.scisoftware.com/...	<input type="button" value="Info"/>
Soil Water and CROP production model	SWACROP	http://lawmc.mines.edu/soft...	<input type="button" value="Info"/>
Hydrological Simulation Program-Fortran	HSPF	http://www.scisoftware.com/...	<input type="button" value="Info"/>
Storm Water Management Model	SWMM	http://www.epa.gov/ednrmrl...	<input type="button" value="Info"/>
Soil parameter Estimation	SOIL	http://www.trentu.ca/academ...	<input type="button" value="Info"/>

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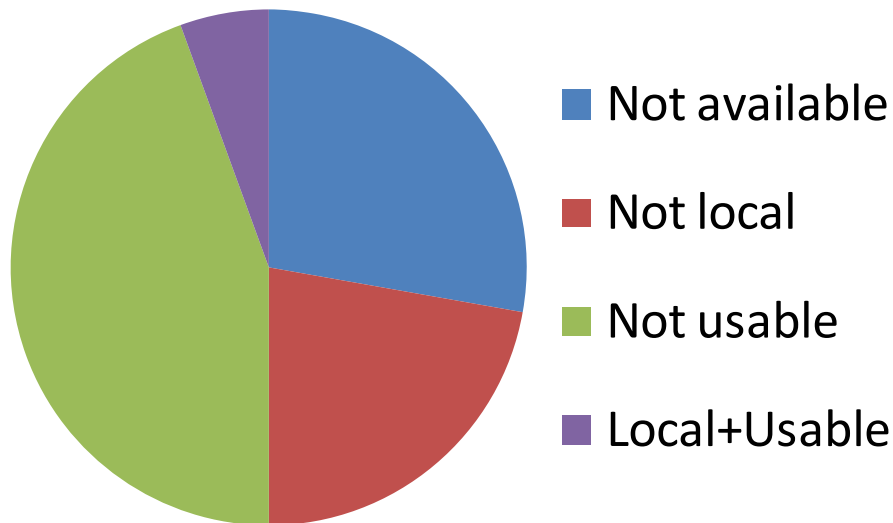
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Results of gap analysis

- The existing **Crop Management Toolkits** cover soil health issues well but lack wider field health issues such as ecosystems around the fields (grassy field margin etc.) providing biodiversity, biocontrol agents, pollinators and other services
- An existing **Sustainable Forest Management Toolkit** addresses forest health issues well. However, it has been applied mostly in Canada. Hence, adaption to the European conditions might appear challenging.
- There's no comprehensive **Recreational Site Management Toolkit** yet. Such a toolkit needs to be created. The core models for that might be RBSIM and SODA.

Ecosystem service type	Information demand	Information supply	Conclusion
Biodiversity	high	low	thematic gap!
Provisioning	low	high	ok
Regulating	medium	low	thematic gap!
Supporting	medium	high	ok
Cultural	medium	low	thematic gap!

- **Database models (198):** 50% were no longer available or not for local use, with only 6% deemed usable locally by non-experts.



- **Other ECOBAS models (195):** 84% were no longer available or not for local use; none were deemed usable locally by non-experts.

