1. Conference schedule

Day 1 (13.04.2015) : Lectures		
Session:	**Time:**	**Event:**
DSS in the World 1	08:00-09:00	Registration
	09:00-09:10	Welcome session
	09:10-09:30	Introductory speech (Adam Wasiak)
	09:30-10:00	Iptim (Jussi Rasinmäki)
	10:00-10:30	AFM Tool (Harald Vacik)
	10:30-11:00	Heureka Forestry DSS (Tomas Lamas)
	11:00-11:30	Coffee break
DSS in the World 2	11:30-12:00	Eco Modelling (Andrew Martin)
	12:00-12:30	SIBYLA modelling for DSS (Marek Fabrika)
	12:30-13:00	EFISCEN (Geerten Hengeveld)
	13:00-14:00	Lunch
DSS in Poland 1	14:00-14:30	The evolution of DSS tools in State Forests (K. Janeczko, H. Kowalczyk)
	14:30-15:00	DSS- gereral overview (Jarosław Socha)
	15:00-15:30	Optimization procedures in the planning of harvesting (B. Kłapeć, W. Tracz)
	15:30-16:00	Coffee break
DSS in Poland 2	16:00-16:30	DSS tools in forest management (Bożydar Neroj)
	16:30-17:00	DSS developed in Forest Research Institute (Radomir Bałazy)
	17:00-17:30	Discussion
	18:00-21:00	Dinner

Day 2 (14.04.2015) : Computer labs *				
	Group 1		**Group 2**	
Session:	**Time:**	**Event:**	**Time:**	**Event:**
Software presentation	09:00-10:15	Iptim (part 1)	9:00-10:15	AFM Toolbox (part 1)
	10:15-10:45	Coffee break	10:15-10:45	Coffee break
	10:45-12:00	Iptim (part 2)	10:45-12:00	AFM Toolbox (part 2)
	12:00-13:00	Lunch	12:00-13:00	Lunch
	13:00-14:15	AFM Toolbox (part 1)	13:00-14:15	Iptim (part 1)
	14:15-14:45	Coffee break	14:15-14:45	Coffee break
	14:45-16:00	AFM Toolbox (part 2)	14:45-16:00	Iptim (part 2)

Day 3 (15.04.2015) : Computer labs *				
	Group 1		**Group 2**	
Session:	**Time:**	**Event:**	**Time:**	**Event:**
Software presentation	09:00-10:15	Heureka (part 1)	9:00-10:15	Eco Modelling (part 1)
	10:15-10:45	Coffee break	10:15-10:45	Coffee break
	10:45-12:00	Heureka (part 2)	10:45-12:00	Eco Modelling (part 2)
	12:00-13:00	Lunch	12:00-13:00	Lunch
	13:00-14:15	ECO (part 1)	13:00-14:15	Heureka (part 1)
	14:15-14:45	Coffee break	14:15-14:45	Coffee break
	14:45-16:00	ECO (part 2)	14:45-16:00	Heureka (part 2)

*The prerequisite for active participation in the practical classes is to have own computer

2. Scientific Commetee

Chairman
Prof. Tomasz Zawiła-Niedźwiecki

Members
PhD, Associate Prof. Janusz Czerepko
PhD, Associate Prof. Jarosław Socha
PhD Krzysztof Janeczko
PhD Jarosław Piekutin
MSc Miłosz Mielcarek
MSc Andrew B. Martin
PhD, Associate Prof. Harald Vacik

Secretary
MSc Radomir Bałazy

3. Organizing Commetee

Chairman
MSc Radomir Bałazy

Members
MSc Miłosz Mielcarek
MSc Tomasz Hycza
MSc Aneta Rydel
MSc Sławomir Sioma

Secretary
MSc Miłosz Mielcarek

4. Decission Support Systems that will be presented during workshops:

a. Heureka (Sweden)

The Heureka Forestry Decision Support System (DSS) is a suite of freely available softwares developed and hosted by the Swedish University of Agricultural Sciences (SLU). The system covers the whole decision support process from data inventory to tools for selecting among plan alternatives with multi-criteria decision making techniques.

The vision is that the system should contribute to a more profitable and environmentally friendly forestry. The utilities handled by the system is timber production, recreation values, bilogical diversity, and carbon storage. By including these in the same system, a holistic approach to forestry planning is made possible.

The system is designed so that it will be relatively easy to add new functionality as new research results and models become available.

The system covers the entire analytical chain, from forest inventory plots, through predictive modeling and optimization, to tools to rank alternatives. The system consists of the following applications:

- StandWise: For stand-level analysis, with 2D and 3D visualization. StandWise is an interactive simulator where the user specifies specifies treatmens period by period.
- PlanWise: For forest-level and landscape planning. Enables the exploration on many different management options and has an inbuilt optimizer for solving problems. Includes a report builder for maps, tables and charts.
- PlanEval: An application to compare and rank the plans created in PlanWise.
- RegWise: The impact on the regional level. Hugin's successor.
- PlanStart: Tool for importing forest data, and prepare for field inventories.
- Ivent: Field computer application to inventory plots. Communicates with computer caliper, altimeter, GPS, and PosTex, a new instrument to determine tree coordinates.
- "Heureka Habitat Model": An ArcGIS application that reads data from PlanWise or RegVis, computes which stands are suitable as habitat in each period, and saves it in a format that can be returned to PlanWise and RegWise. Note: This software is not yet released.

Info: www.heurekaslu.org/wiki

b. Iptim (Finland)

Design your own data model and import your existing inventory data, including compartment maps. Maintain integrated data in a simple-to-view format, organize it to fit your needs, update and edit it easily, analyze it using understandable metrics, and identify opportunities and challenges. Data is stored safely off-site using Iptim’s regular data backups and redundant layers of security. All using a simple dashboard giving you a quick and easy access to your data.

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Visually interpret complex data from a variety of sources, utilize your measurements more effectively and see the “big picture”. Put your company data to work for you and use it to develop actionable strategies. Engage more stakeholders with visual data from Iptim through customized access and simplified online collaboration.

Planning is part speculation, part experience, but all based on reliable data. Iptim's modeling tools enable you to calibrate your growth models or taper equations simply, quickly, and confidently to better suit your data. With Iptim you can also model your management regimes, costs and timber prices in detail and tweak the various silvicultural and harvest operations to match your needs. Iptim’s modelling tools help you to identify trend lines earlier for a more certain future.

Using Iptim’s Plan Analysis tools, you create easy-to-interpret graphics that point your company down the road to increased productivity and optimized use of company assets. Create

plans, predict outcomes with assurance, and move forward with greater confidence. Optimize business strategies, refine existing operations and procedures and design the most effective use of your assets with Iptim. Iptim empowers the company from C-suite to field operations, ensuring that the flow of forest data is transparent and increasingly accessible throughout your organization.

Create detailed plans to meet your objectives. Analyze the future reforestation activities to maintain the long-term viability of your timberland. Plan for the distant future and continued company success, visualize your plans with Iptim's Spatial Visualization tools and extract the plans for external processing. You can also export: statistical reports about your models; necessary indices and figures for financial analysis; and customized reports that present management plans and timber resources in useful, clearly understandable format, simplifying analysis and planning.

Info: www.iptim.com

c. Eco modelling

Eco helps users perform strategic analysis using optimization models. These are long term planning models that help users determine what to cut, when to cut, how to cut, and how to regenerate the land.

Users login, and upload their data to our secure servers. They then initialize a model where they give it a name, and set the length of the planning horizon. From there they define interventions (individual actions, e.g. final felling entry, thinning entry), prescriptions (sequences of interventions that span the planning horizon), and constraints (management objectives). After this step, a simulation runs, an optimization model generates, and then it's solved. Users can analyze the results of their optimization in the analyze view.

Eco is flexible because users supply their own data, and define their own prescriptions. There are not many new commands to learn, so Eco can be picked up quickly even for less technical users. Further, Eco can run quickly, so it makes the planning cycle pretty fast.

Info: MSc Andrew B. Martin

d. AFM Toolbox (Austria)

Current thinking about forest forest management concepts needs to recognize multiple objectives and interests of stakeholders including, inter alia, timber production and carbon storage, conservation of biological diversity and protective functions. In European forestry, an integrated approach to SFM (sustainable forest management) regime sensu MCPFE (1993, 2003) has gradually replaced the traditional paradigm of sustainable timber production. Consequently, potential adverse effects of climate change on the provision of multiple forest goods and services need to be addressed in planning and decision making processes. For forest resource managers this will impose major challenges. The reasons are that climate change impacts on forest structure and composition may be due to a multitude of processes at various spatial and temporal scales and thus difficult to anticipate, there are considerable uncertainties regarding future climatic changes to be considered, and that the potential adaptation measures may require long lead times to become effective.

There are two standard modes of decision support for forest managers which have been practiced so far:

1. Scientists were writing articles in professional practitioner´s magazines which were either very general or very specifically coined at a particular case study.

2. Scientists were doing a specific analysis together with forest managers in course of a joint research project or consultancy.

Both approaches have their merits and limitations. While in the former case the major problem for an interested forest manager who is seeking advice and solutions for his/her forest is to translate available knowledge to the conditions in a particular new landscape. In the latter case the generated knowledge and information will be tailored to the specific forest and management conditions, however, this comes usually at rather high cost. It is also obvious that just a small share of all forest owners and their managers will have the opportunity at all to directly utilize the potential benefits of such a cooperation between practice and science.

Scope of the AFM ToolBox

To circumvent some of these limitations the AFM ToolBox has been designed. Beyond informative materials about topics related to forest management under climate change the AFM ToolBox features tools which can help to analyse and plan adaptive management options. A key feature is that the AFM ToolBox contains tools and materials which are suitable for the forest manager “Do-it-yourself” mode as well as the “consultancy” mode where an external expert works together with a forest manager on a decision problem.

Info: www.afm-toolbox.net