## SCERIN-5, Pecs, Hungary, June 20-23, 2017



Land cover changes and natural hazards - integrated forest / watershed management for environmental, economic and political stability

The capacity building workshop SCERIN-5 will focus on the land cover changes, natural hazards and their management on an integrated watershed and regional level. Research topics of regional interest to address include: ecosystem dynamics based on Landsat and Sentinel archives, and forest growth, health and insect infestation detection and monitoring - both of increasing importance in the context of climate change. The workshopwill be held in coordination with a Trans-Atlantic Training and the activities are jointly sponsored by our Hungarian Hosts, NASA, ESA and START.

### SCERIN-5 Capacity Building Workshop: Agenda at a Glance

Day	Mon	Tue	Wed	Thu	Fri*	Sat
Date	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun
Event	Arrival	day 1	day 2	day 3*	day 4	Departure

\* Field trip

#### The goals of SCERIN in 2017 and SCERIN-5 Capacity Building Workshop in Pecs, Hungary are:

1) toinform about ongoing major scientific efforts addressingLCC characterization, and discuss projects with contribution and possible joined activities of the SCERIN participants; and

2) tooutline progress on the initiated validation activities toward peer review publications, and foster new ideas for regional collaborative research by the participants.

The workshop will outline the activities to be completed by SCERIN within the following year.

### **SCERIN Focus Groups (FG):**

- ➢ FG1: Forest monitoring
- ➢ FG2: Land cover changes
- ➢ FG3: Validation/verification network

**Hosts:** The event will be hosted by University of Pécs, Faculty of Sciences, Institute of Geography with a main host and contact Dr. Levente Ronczyk (contact information below). The host address and contact information include:

- The University of Pécs, represented by LeventeRonczyk (Ifjuságstreet 6, 7624 Pécs, Hungary; <u>h2o@gamma.ttk.pte.hu</u>). This is our primary host and organizer.
- The Regional Committee of the Hungarian Academy of Sciences at Pécs, represented by István Fodor (Juriscs M. 44, 7624 Pécs, Hungary; <u>fodor@rkk.hu</u>). SCERIN-5 CBW will be hosted at their conference facility.
- MECSEK FORESTRY Co. Ltd., Danube Drava National Park, Old Drava Office, Zsolnay Heritage Management Nonprofit Ltd.

**The Organizers of SCERIN-5 include the Hungarian Hosts (above)**, Petya Campbell, Jana Albrechtova, Lucie Kupkova, Senay Habtezion and Garik Gutman.

**Instructions for oral presentations**: Please, design your talk in a manner to live 25 % of your time for discussion within yourallocated time in the timeschedule (i.e. if your presentation is scheduled for 20 min, please, design it for 15 min to allow5 minutes of questions and discussion – THANKS!).

Instructions for SCERIN Project Inventory Panel – one slide listing for your institution:

Project/Program	Sponsor	Duration	Support (funding level)	
During the panel you will tell us the objectives, and how they relate to SCERIN.				

Time	6/20/2017 Tuesday				
Time	SCERIN-5 Day 1	Presenter			
8:30	Registration & Logistics				
	Plenary Session (Session Chair: DénesLóczy; Records: Petya Ca	mpbell – Lectures)			
8:45	<b>Opening</b> SCERIN-5 Goals and Agenda	Petya Campbell and Jana			
0.45	Opening SCERIN-5 Goals and Agenda	Albrechtova, SCERIN coordinators			
9:00		Róbert Gabriel, Dean of Faculty of			
		Sciences, UP LászlóLénárd, HAS (Hungarian			
	Welcome Addresses of the Hosts	Academy of Science)			
		DénesLóczy, UP (Institute of			
		Geography)			
0.15	The NASA LCLUC Program Support of GOFC-GOLD				
9:15	Networks – an Update: Focus on Europe	Garik Gutman, NASA/HQ			
9:35	Regional Information and Knowledge Networks – Reflections	Sanay Habtazion START			
9.55	on capacity building under GOFC-GOLD	Senay Habtezion, START			
9:55	Key note from hosting organization: Land cover and land use	DénesLóczy, UP			
	change in Hungary				
10:15	Coffee Break and <b>Picture</b> (25 min)				
	SCERIN Invited talks(Session Chair: Jana Albrechtova, Recor				
10:40	Harmonizing Landsat and Sentinel-2 time series	Jeff Masek, NASA/GSFC			
11:00	Sentinels status and latest results	Gordon Campbell, ESA			
11:20	The synergetic use of SARand optical time-series for	Francesco Holecz, SarMap			
	agricultural and forest application	-			
11:40	IIASA Ecosystem Services and Management Program	Dmitry Schepaschenko, ESM/IIASA			
	experience in the field of LCLUC	ESM/IIASA			
12:00	Briefingon Land-cover classification in the cloud using Google Earth Engine	Noel Gorelick, Google Inc.			
12:20	Working Lunch (1hr 10 min, sponsor	rs HD)			
12.20	Research Highlights Hungary (Session Chair:DénesLóczy, Re				
		IstványErényi, Hungarian Space			
13:30	Main Activities of the Hungarian Space Office	Office			
13:45	Farm support via crop yield measurements by satellite data	GáborCsornai, Cosima LTD			
	Recent Applications of Remote Sensing in Forestry at the	KornélCzimber, University of			
14:00	University of Sopron	Soporon			
14:15	Research and User Support (RUS) on-the-cloud	Brice Mora, CS			
14:30	SCERIN Research Highlights: poster speed talks (Session C				
	Petya Campbell; list - next page, each 2 min, 1-2 slides to supply in advance before lunch)				
15:30	Questions & Discussion, Coffee Break and Viewing of Posters (90 min)				
16:30	Adjourn				
18:00	Networking Reception (Academy, sponso	or START)			

# 6/20/2017 Tuesday(Day 1)

## **Posters speed talks**(2 minutes for the highlights)

First Name	Last Name	Focus Group (FG)	Title
Ivan	Barton	FG1: Forest monitoring	Treefall gap detection on Sentinel-2A satellite images in the Börzsöny mountains
Lachezar	Filchev	FG1: Forest monitoring	Estimating forest cover changes in Bulgaria using ALOS-PALSAR data
Mihai Daniel	Nita	FG1: Forest monitoring	Massive forest harvests following World War II revealed by historical Corona spy imagery
Rumiana	Vatseva	FG1: Forest monitoring	LCC in Bansko ski resort, BG in the period 2000 - 2016 based on remote sensing data
Noémi	Eőry	FG2: Land Cover Changes	Waste Deposition Detection - 1st steps of a development project
Bejan	Iurii	FG2: Land Cover Changes	The land use / land cover change in Botna river basin
Stanisław	Lewiński	FG2: Land Cover Changes	Automatic selection of classification thresholds for change detection in land cover
Minučer	Mesaroš	FG2: Land Cover Changes	Land cover change analysis for environmental pressure evaluation in protected areas in Serbia
Mykola	Meretskyi	FG2: Land Cover Changes	Assessment of various satellite band combinations and resolution for crop classification accuracy
Ivica	Milevski	FG2: Land Cover Changes	Landcover changes vs erosion rate in upper Bregalnica Catchment (Macedonia, FYR)
Brice	Mora	FG2: Land Cover Changes	Sentinel 2 for Agriculture
Mátyás	Rada	FG2: Land Cover Changes	Experimental Landsat-8, Sentinel-2 and Sentinel- 1 Synergy for 30-m Land Cover Mapping
Luka	Rumora	FG2: Land Cover Changes	Vegetation detection using video data
Volodymyr	Starodubtsev	FG2: Land Cover Changes	Land degradation in river deltas under anthropogenic pressure
Premysl	Stych	FG2: Land Cover Changes	Overview of changes in land use and land cover in Eastern Europe
Rumiana	Vatseva	FG2: Land Cover Changes	Mapping urban green spaces based on Sentinel- 2A satellite imagery
Jana	Albrechtova	FG3: Validation/verification	GLC Products Validation and Inter-Comparison in South Central and Eastern Europe (SCERIN)
Monika	Tomaszewska	FG3: Validation/verification	Modelling land surface phenology and seasonality in highland pastures in the Kyrgyz
Tatjana	Veljanovski	FG3: Validation/verification	Automatic object based LCLUC generation from high resolution satellite data
Katia	Benet	FG3: Validation/verification	USA Science hub activities, Budapest,HU

Time   SCERIN-5 Day 2   Presenter's N     Working Sessions (WS) of the SCERIN Focus groups on the joint papers: detailed overview by discussion topics*, schedule for paper finishing (Session chair: Petya Campbell, Records: Leaders)   9:00     WS1 Global/ Continental land cover products validation and intercomparison in the SCERIN area   Manakos (leaders)     9:20   WS2 Assessing the causes of CORINE LU/LCC   Taff (lead)	y leaders,				
discussion topics*, schedule for paper finishing (Session chair: Petya Campbell, Records: Leaders9:00WS1 Global/ Continental land cover products validation and inter- comparison in the SCERIN areaManakos (leaders)					
9:00 WS1 Global/ Continental land cover products validation and inter- comparison in the SCERIN area Manakos (lead	of WS1-3)				
comparison in the SCERIN area Manakos (lead					
comparison in the SCERIN area	1)				
9:20 WS2 Assessing the causes of CORINE LU/LCC Taff (lead)					
9:40 WS3 status of GIMMS NDVI analysis in SCERIN Pilas (lead)					
	Discussions of the topics provided by WS leaders*				
10:30 Coffee Break and Posters (30 min)					
11:00Discussions in parallel working sessions (WS1 – room TBD, WS2 – room TBD, and WS3 TBD), records will be assured by the WS lead	Discussions in parallel working sessions (WS1 – room TBD, WS2 – room TBD, and WS3 – room TBD), records will be assured by the WS lead				
12:15 Working Lunch (1hr 15 min, sponsors HP)	Working Lunch (1hr 15 min, sponsors HP)				
SCERIN Countries and ProgramsInventory Panel(Session Chair: Petya Campbell, Eac institution shouldsupply 1 slide based on .ppttemplate <sup>1</sup> :Bulgaria, Croatia, Czech Republic, Hungary, FYR Macedonia, Moldova, Poland, Romania, Serbia, Slovakia, Slovenia, Ukrain	Greece, ne)				
Advanced Methods (Session chair: Gregory Taff; Records: Petya Campbell; 15 minutes ed	ach)				
14:00Large area land cover change in SE EuropeMutlu Ozdoga	n				
14:15   Global LC mapping based on Sentinel-2 data   Stanislaw Lew	vinski				
14:30Remote sensing and ecosystem function of low-land floodplain forests – potential for SCERIN collaborationIvan Pilas					
14:45 Coffee Break and Posters (20 min)					
Research highlights in SCERIN region (Session chair: Petya Campbell; Records: Mutlu Ozdogan; 10 minutes each)					
15:05EOs improving ecosystem benefits: ECOPOTENTIAL Activities in the SCERIN Protected AreasIoannis Manal	kos				
15:15Remote sensing and GIS analyses in identification of potential water vulnerable zones on arable landFrantisek Zem	nek				
15:25 Monitoring of tundra vegetation in the Krkonoše Mts. using multispectral Lucie Kupkov and hyperspectral data	a				
15:35 Composite indicator for monitoring of Norway spruce stand decline using remote sensing methods Olga Brovkina	a				
15:45 Land cover change as an indicator of land degradation neutrality in the United Nations program MykolaLavrer	nik				
15:55 Airborne remote sensing technologies, Hungary MikusDezső					
Questions & Discussion					
16:30 Adjourn					
17:00 BUSS tour: Planetarium - Ancient Hungarian star constellations	BUSS tour: Planetarium - Ancient Hungarian star constellations				
Urban LCLUC - Environmental effect of urban landscape development					
19:00 SCERIN-5 Hosts Dinner (Restaurant TBD, sponsors HP and UP)					
<sup>1</sup> Table in on page 1, or power point slide TEMPLATE attached as a separate file					

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### 6/22/2017Thursday SCERIN-5 Day 3

### **Regional LCLUC - Field Trip**

Scientific Field Trip: "Land use change planning of the Old Dráva Program" Goal: learn about the typical regional drivers/examples of Land Cover Change, provide time for informal discussions, and foster further the SCERIN network collaborations.

8:15 Departure in front of the building of the Academy, Jurisics M. str. 44, Pécs

amm 0:20	Arrival to Spanning (star 1)	
app. 9:30	Arrival to Szaporca (stop 1.)	
9:30 - 10:30	Visiting Old Dáva Visiting Center (http://odlk.hu/en/)	
	Old Dráva Program - MrZsoltTiffán, regional parliamentarian and Governmental Commissioner responsible for the	
	Old Dráva Program,	
	Traditional Floodplain Management - MrEndreStelik , ranger Danube-Dráva National Park	
11:00	Arrival to Drávafok(stop 2.)	
11:00-12:00	For Ormánság Foundation	
	Ecological Fruit-Culture – Tamás Lantos, representative of the Ormánság Foundation	
12:30	Arrival to Alsóerdeiforest(stop 3.)	
12:30 - 13:30	Lunch (Deer stew sponsored by Mecsek Forestry Co. Ltd)	
14.15	Arrival to Szentegátforest(stop 4.)	
14:15 - 15:00	Short history of the Hungarian forest management and visiting the oldest oak forest on the former Dráva floodplain –	
	DénesMolnár, forester Mecsek Forestry Co. Ltd	
15:30	Arrival to Drávaiványforest(stop 5.)	
15:30 -16:30	Floodplain oak forest management – DénesMolnár, forester Mecsek Forestry Co. Ltd	
17:30	Arrival to Palkonya(stop 6.)	
17:30 - 19:00	Visiting street of Cellars (wine tasting sponsored by HP)	
	https://villanyiborvidek.hu/en/settlements/palkonya	
20:00	Arrival to the Academy, Pécs	

The field trip will focus on the Old Drava project, which is the biggest scale landscape restoration project in Hungary, founded by the Hungarian government. The main project elements have a big influence on land cover and land use of the Drava river floodplain (Ormánság), and include the following action fields:

- integrated floodplain management
- habitat revitalization
- forest regeneration
- water regime restoration

During the field trip, three demonstration sites will be visited. The bus journey to the first stop (Old Drava Visitor Center) will take



about 1 hour, where the staff of the Danube Drava National Park will introduce the former floodplain management activities. Afterward the government office will highlight the Old Drava project and summarize the governmental objectives at Kémes. Our last stop will be an NGO (For Ormánság Foundation), which deals with traditional land management at Drávafok. This field trip is organized by the hosts for the participants in SCERIN-5 and TAT.

How to dress: sport gear, walking shoes

Time	6/23/2017Friday		
Ime	SCERIN-5 Day 4		
	SCERIN Observers – Countries and Institutions Programmatic Panel (Georgia and Norway –		
9:00	10 min each) (Chair/Records: Petya Campbell)		
	Questions & Discussion		
9:30	WS 1 Outcomes - Manakos (lead) – 10 min summarization, short discussion		
9:45	WS 2 Outcomes - Taff (lead) – 10 min summarization, short discussion		
10:00	WS 3 Outcomes - Pilas (lead)- 10 min summarization, short discussion		
10:30	Coffee Break and Posters (30 min)		
	<b>SCERIN Future joined activities:</b> proposals for presentations are welcome (e-mail suggestions) <sup>1</sup>		
	František Zemek: SCERIN new projects proposals and future directions		
11:00	- presentations for joint proposals		
	- presentations for new joint papers		
	Questions & Discussion		
12:15	Working Lunch (sponsor START)		
SCERIN Future plans, activities and potential venues( Chairs: Petya Campbell, Jan			
13:30	Albrechtova; Records: Lucie Kupkova)		
	SCERIN Future Venue(s) – proposals for venues in 2018		
	Questions & Discussion		
14:45	Coffee Break, Posters are removed (30 min)		
15:30	SCERIN-5 Workshop outcomes, actions and deadlines, summary and conclusions		
	Chairs: Petya Campbell, Jana Albrechtova, Records: Lucie Kupkova		
16:00	Meeting Closing, Host Concluding Remarks (Levente Ronczyk)		
16:30	Adjourn		

<sup>2</sup>Let usknow if you would like to propose an activity and present the goals (e-mail Jana and Petya)

## List of SCERIN-5 Participants

First Name	Last Name	Affiliation	E-mail	ISO
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