



P-DaKH Transdisciplinarity Forum on Resilient Phosphorus Supply and Sustainable Phosphorus Use

18-19 October 2023, Palais Strozzi, Complexity Science Hub Vienna

18 October – CSH – Room E02 (Lecture Hall)		
8:30-9:00	Registration and informal meeting	
9:00	Welcome	Peter Klimek (Austria)
9:10-9:40	The Phosphorus Knowledge and Data Hub: Goals, structure	Roland W. Scholz (Austria/Switzerland) and Gerald Steiner (Austria)
9:40-9:50	Views and visions of the Global Phosphorus Institute	Joann Whalen (Morocco/Canada)
9:50-10:10	Discussion	All
10:10-10:15	Break	
Exploration and Mining for Mid- and Long-Term Phosphorus Supply Security		
10:15-11:10	The Dynamics of Reserves and Resources and the Evolutionary Cumulative Availability Curve PhosDataD: Why do we need a global site specific databank of phosphorus deposits The structure of PhosdataD and the feasibility of construction	Friedrich-Wilhelm Wellmer (Germany) Roland W. Scholz Leopold Weber (Austria)
11:10-11:30	PhosDataD: Appraisal from Geological Services	Stephen Jasinski (USA) Kerstin Kuhn (Germany) as members of the P-DaKH Expert Panel: Site Specific Global Phosphorus Deposit Databank (video message)
11:30-11:50	Discussion	All
11:50-12:00	Break	
Fertilizer Processing		
12:00-12:40	Needs for innovative fertilizers. What innovations in products and processing are visible and which ones are not Markets for Phosphate and major trends	Amit Roy (USA) Willem Schipper (The Netherlands – video message) Maria Gamboa (UK)
12:40-13:10	Discussion	All
13:10 – 14:15 Lunch		

Use		
14:15-15:15	Phosphorus in Agriculture: Myths and Facts and the Way Forward in Looking for a More Sustainable Use Phosphorus demand in Vietnam and how to improve the phosphorus use efficiency Roadmap for a circular phosphorus economy in Norway	Louis Prochnow (Brazil) Tien Minh (Vietnam) Daniel Müller (Norway)
15:15-15:45	Discussion	All
15:45-16:15 Coffee break		
Recycling		
16:15-17:15	Options for P-Recycling, and circular P-economy Spotlight: Potential, requirements and limits of recycling of phosphorus from mono-incinerator ash Organic waste management in Kenyan Agro-ecosystems Sensitivity of Global Phosphorus Flows to Recycling and Conservation Phosphogypsum: from Waste to Inventory The Austrian phosphorus budget: its analysis and optimization	Ludwig Hermann (Austria) Wolfgang Hofmaier (Austria) Arusey Chebet (Kenya) David Vaccari (USA) Julian Hilton (UK) Helmut Rechberger (Austria)
17:15-17:45	Discussion	
Resume		
17:45-18:00	Next steps	Scholz, Steiner
18:00-18:15	final discussion	all
Dinner		
19:15	Prinz Ferdinand Bennoplatz 2,1080 Wien	all

19 October – CSH – Room 201 and Salon

9:00-9:30

Welcome and reflection on day 1 (Salon)

Special Interest Group 1: PhosDataD, (Scholz/Asadi) - Room 201

11:15-14:00

Spotlights and Inputs:

Which data should be included in the PhosData deposit data bank, how to evaluate deposits

Inputs:

Status of Phosphorus databank for the pilot cases (Dr. Iman Asadi)

Data modeling for PR production: mining districts and material flows (2019) (Anna Shchiptsova)

Lasky Law: Grade-Tonnage relationship (Ilya Lavrov)

Discussants:

Iman Asadi
Aya Schneider-Mor
Maisa Bastos Abram
Maria Gamboa
Stephen Jasinski
Roland W. Scholz
Leopold Weber
Michael Mew
Anna Shchiptsova
Ilya Lavrov

Special Interest Group 2: PhosdataM - including MFA (Scholz/Kabir - Room 201)

9:30-13:00

Spotlights and Inputs:

MFA and efficiency improvements, (Actor-based) Loss-oriented modularized MFA (Roland W. Scholz)

Inputs:

Climate change, crop production and biomass (Md Humayain Kabir)

From design theory of ecological design of fertilization (Simon Höfer)

Innovation along the supply chain (Maria Gamboa)

The beneficiation process of phosphorus (Dr. Aya Schneider-Mor)

Discussants:

Daniel Müller
Tran Mingh Tien
Md. H. Kabir
Arusey Chebet
Joann Whalen
Steven Jasinski
Simon Höfer
Meryem Inabi
Maria Gamboa
Terry Roberts
Kaushik Majumdar

Special Interest Group 3: Innovation (Steiner/Raddant) - Salon

9:30-13:00

Spotlights and Inputs:

Fertilizer application, yield efficiency, food

Discussants:

Gerald Steiner

	<p>production</p> <p>Inputs: Phosphate fertilizer efficiency and recycling (Sergio Paulo Pavinato)</p>	<p>Matthias Raddant Amit Roy Malika Moussaid Julian Hilton Sergio Paulo Pavinato Luis Prochnow Abdellah El Houari</p>
10:45-11:15 Coffee Break (Salon)		