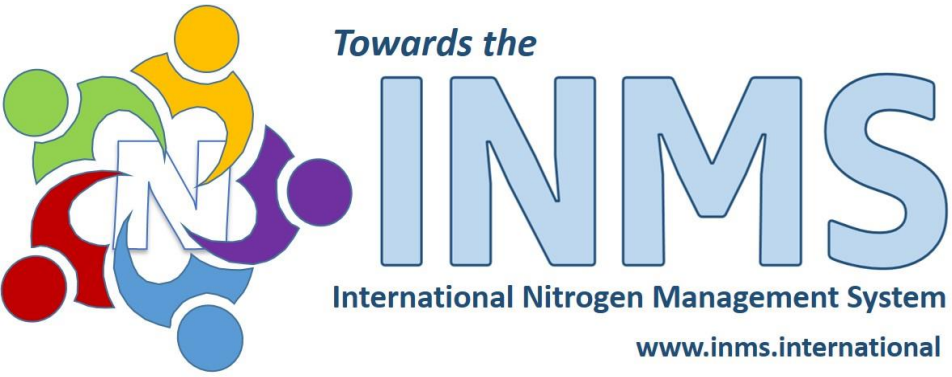


Activity 2.4 – Scenarios service for INMS demo areas

David Kanter & Wilfried Winiwarter

Agenda

- Welcome and introduction (30 minutes).
  Scenario concepts.
  Focal points of demonstration areas.
- Stakeholder document (15 minutes presentation & 15 minutes discussion):
  contributing to scenario development
- Adapting and developing scenarios to demonstration regions: past experience
  – 30 minutes including discussion
- Needs and expectations of demonstration area representatives for scenario and modeling processes – 20 minute discussion

Towards the INMS
International Nitrogen Management System
www.inms.international

Task Outputs

TO2.4.1	… / Kanter	Review of existing N policies
TO2.4.2	Winiwarter / Kanter	Review existing storylines & scenarios
TO2.4.3	Winiwarter / Kanter	Workshop on storylines & scenarios
TO2.4.4	Winiwarter / Kanter	Synthesis future programs & policy options

N scenarios in INMS

Aims (Workshop in NY, January 2018)

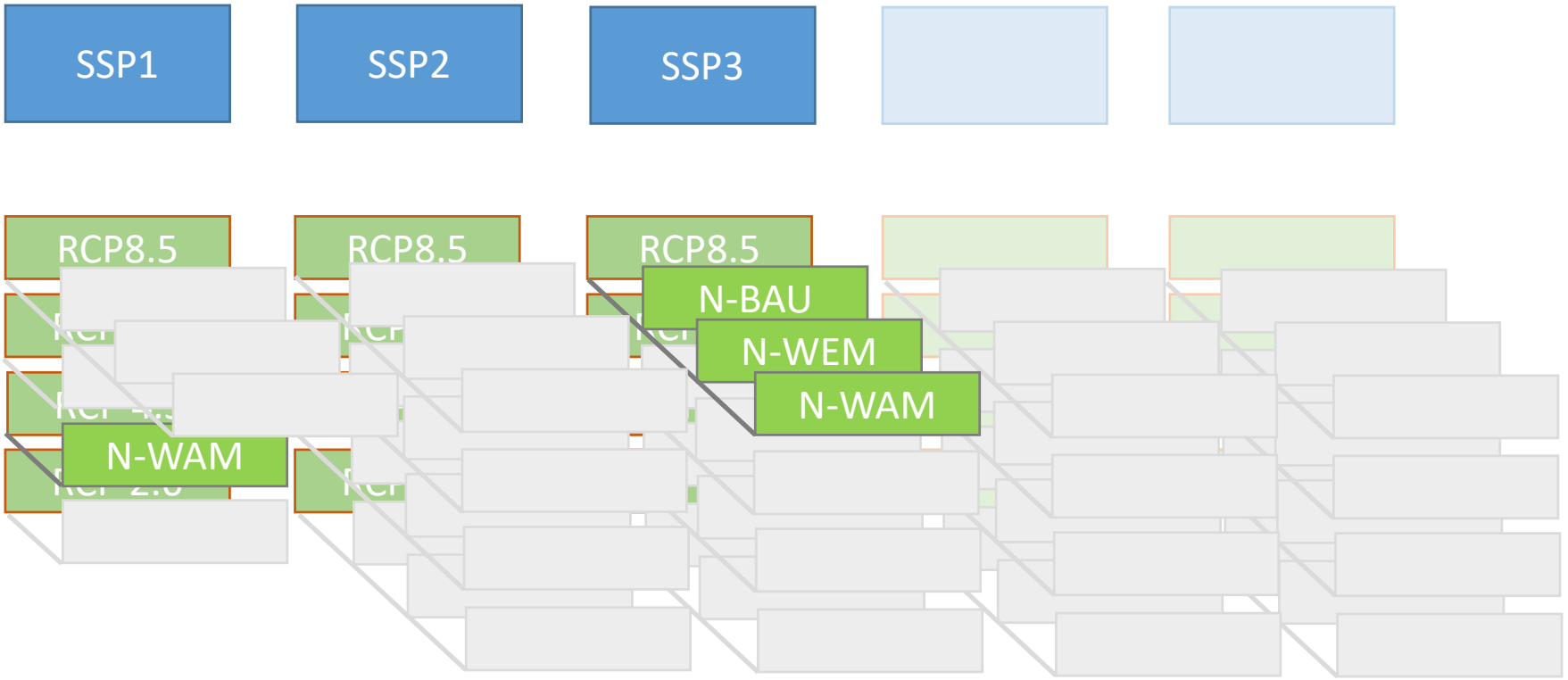
- Bring together N scenario-related activities
- Identify promising pathways of nitrogen abatement (from existing studies)
- Link to storylines developed by climate community (SSPs)

No scope to

- Develop new scenarios

Towards the INMS
International Nitrogen Management System
www.inms.international

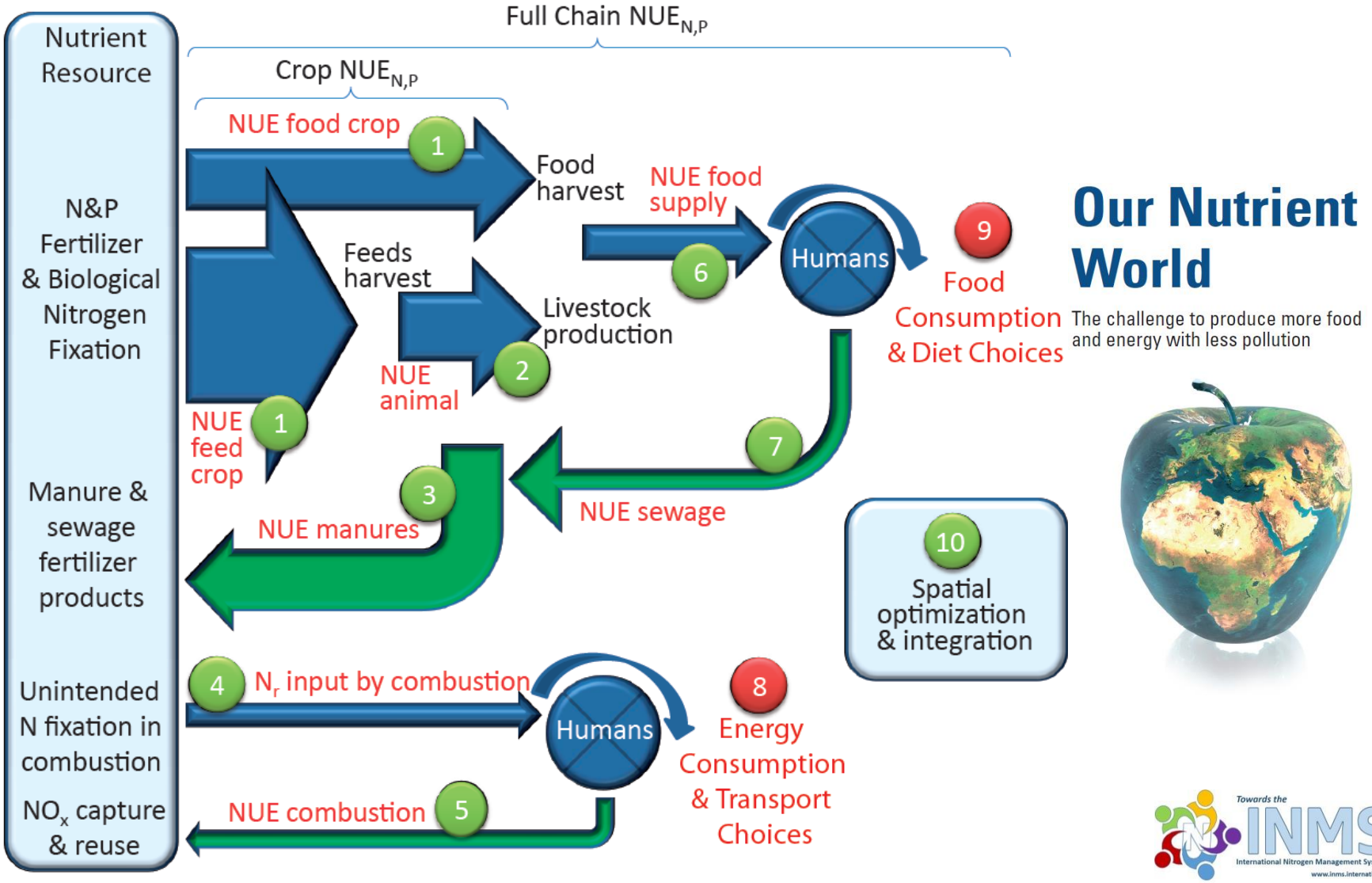
N scenario concept



Discussion – Demo areas: concepts and focal points

	Key N challenge	Environmental media covered	Policy challenge
East Asia			
South Asia			
La Plata River			
Lake Victoria			
Dniester/Prut/Lower Danube			
Atlantic Seabord			
Nooksak River			

Involving stakeholders …



Towards the INMS
International Nitrogen Management System
www.inms.international

Measures to be explored

- Fertilizer/manure production and consumption
- Livestock numbers, type and distribution
- Cropping acreage, fertilizer application rates and dates, and harvest dates
- Farming management practices and resulting nitrogen flows
- Wastewater totals and spatial distribution, including nitrogen emission factors
- Nitrogen emission factors for industrial processes
- Integration of the above issues and their interactions

INMS timeline

- “Towards INMS” project duration October 2017 – September 2021
- Final result is a “Global Nitrogen Assessment” up for discussion (as draft) at INI 2020 in Berlin, Germany (May 4-9, 2020)
- INI modelling activity commences after a comprehensive selection procedure

→ Early scenario recommendations needed

Towards the INMS
International Nitrogen Management System
www.inms.international

NY Take Home Messages

- Temporal extent to 2030, 2050, (2070), 2100
- Using SSPs: an ideal solution (“nirvana”) and a “worst-case” situation (“nasty”) are to be identified
- The “worst case” situation allows us to evaluate amplitude of N reduction potential
- Simultaneously, developing targets (e.g., “halve nitrogen waste”) would allow us to link mitigation strategies with a specific ambition level
- Products:
  - Workshop agreements
  - Stakeholder document
  - Scientific paper
  - Modeling protocol

Stakeholder questions

www.inms.international/a2_4_stakeholder_questionnaire

- What nitrogen related goals are important to you?
- Does the proposed INMS scenario framework capture the range of future worlds that are relevant to stakeholders?
- How could the nitrogen-related storylines be made more useful for your purposes?
- What other aspects do you think we should consider?
- Other Comments

What we'd love from you

- What lessons have you learned from previous scenario experiences that you think we should know? Good and bad, please!
- What would be a useful set of scenario outputs for you to use in your demonstration project? i.e. what are we missing?
- How can we make the scenario process both relevant on a global scale, but also usable/applicable at a local/regional scale?