Biochar as option for sustainable resource management (TD1107)

Start date: 26/03/2012

End date: 25/03/2016

Year: *2*

Prof. Dr. Bruno Glaser

Chair

Martin-Luther-University Halle-Wittenberg, Germany

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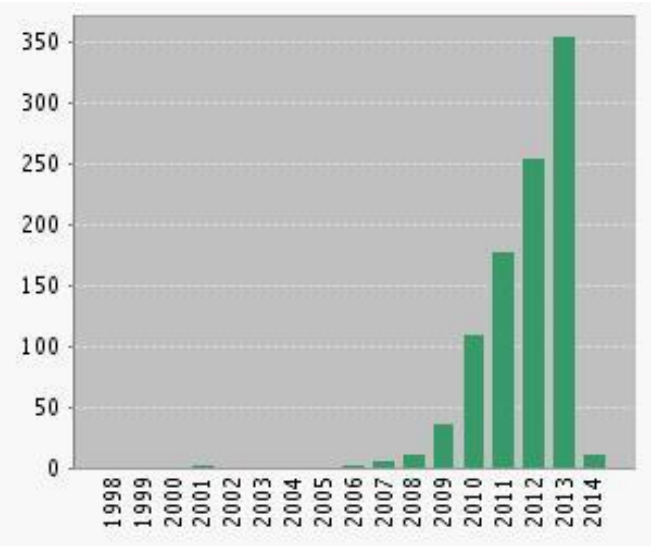
Scientific context and objectives (1/2)

Technology

Science



Biochar:	**1,311**
SOM:	**47,784**
HS:	**17,114**
Compost:	**21,075**

⇒ Still a lot of things to do !!!

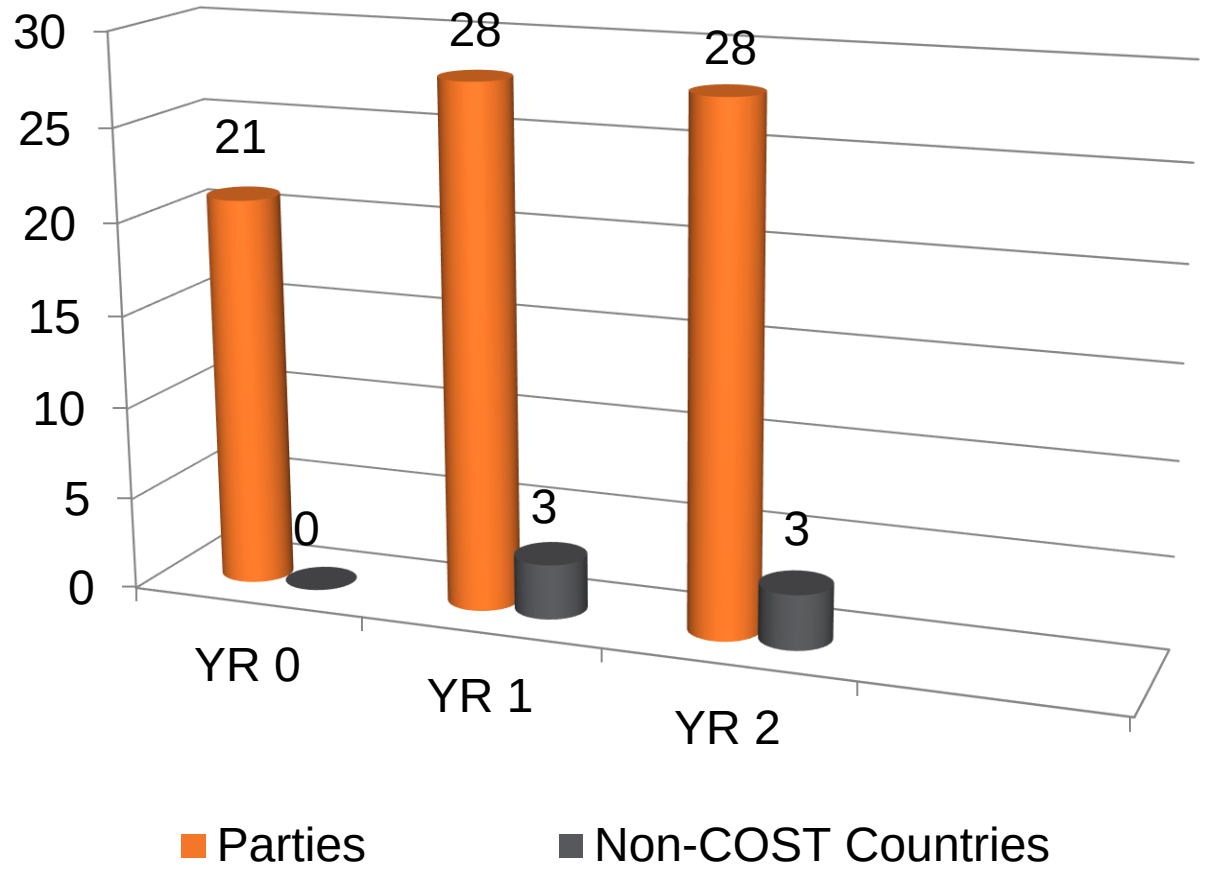
Scientific context and objectives (2/2)

1. **Biochar production and characteristics**
   Optimization of biochar properties
   Development of roadmap for large scale biochar production
   Identification of most beneficial biochar use strategies
   => Standardization (test procedures, protocols, application, certificates)
2. **Environmental impact (benefits vs. risks)**
   Strategies for carbon sequestration and soil improvement
   Evaluation of potential threats
   Development of potential detoxification strategies
   => Best practice recommendations
3. **Knowledge expansion and handling**
   Provision of target group-specific recommendations
   Identification of common (EU) R&D targets
   Promotion of public information transfer
   => Network (Biochar database)

Working groups

1. Production & Characterisation	2. Land Use Management	3. Economic analysis & LCA	4. Environmental Impact
Char Archive, (reference set)	Study site exchange	Feedstocks	Legislation basis
Sample exchange	Synergistic field trials	Technology	Biochar database
Method standardisation	Distribution of practical reports & "recipies"	Model scenarios	Meta analysis
		Implementation	Synthesis reports Review papers
What is biochar ? How to make it?	How to use it ?	Is it economic ? Is it efficient ?	How does it work? Is it save ? How to legalize and communicate?

Action Parties



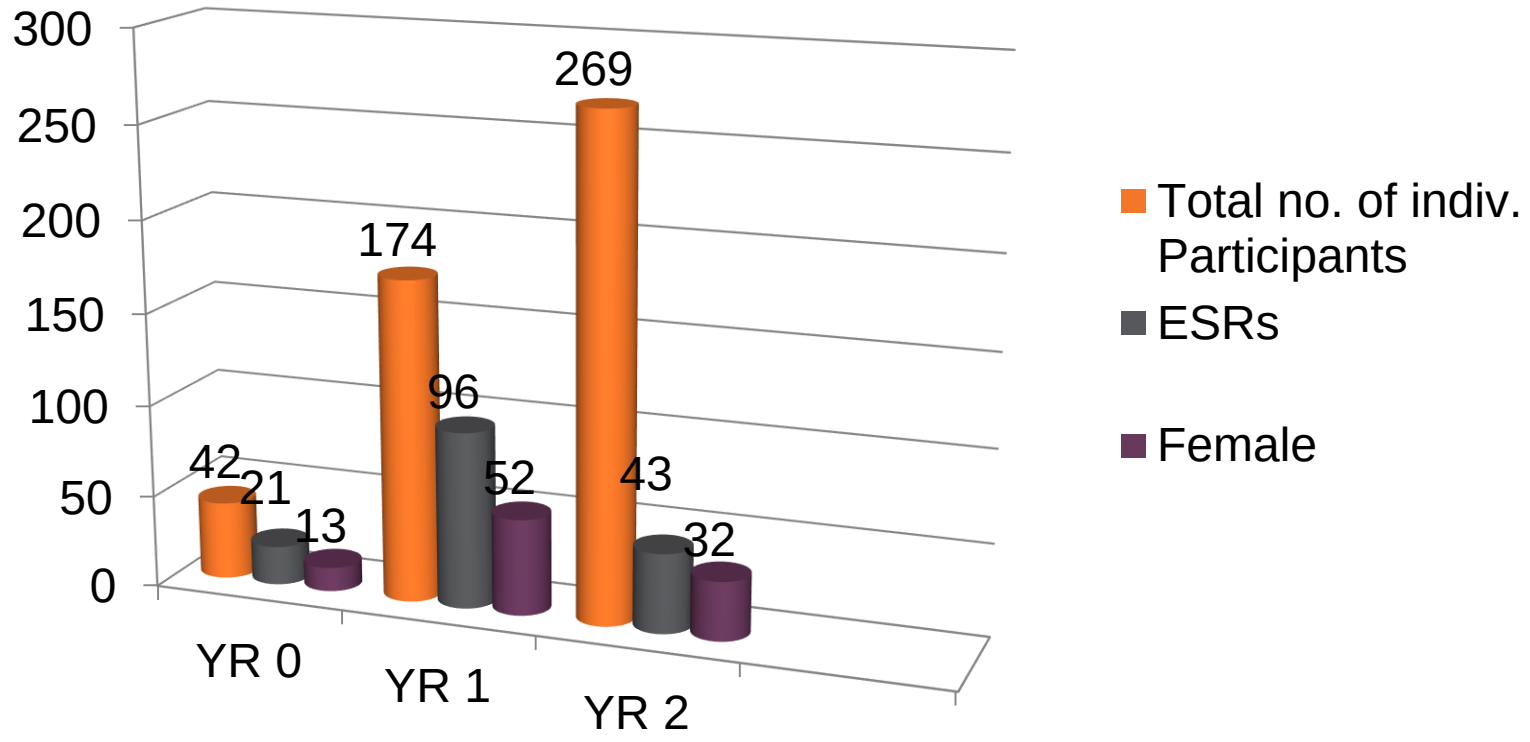
Grant Holder:

Martin-Luther-University Halle-Wittenberg

Luise Störmer

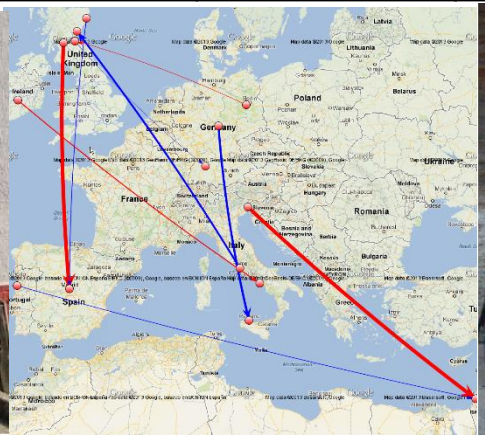
Germany

Action participants



Use of COST Instruments

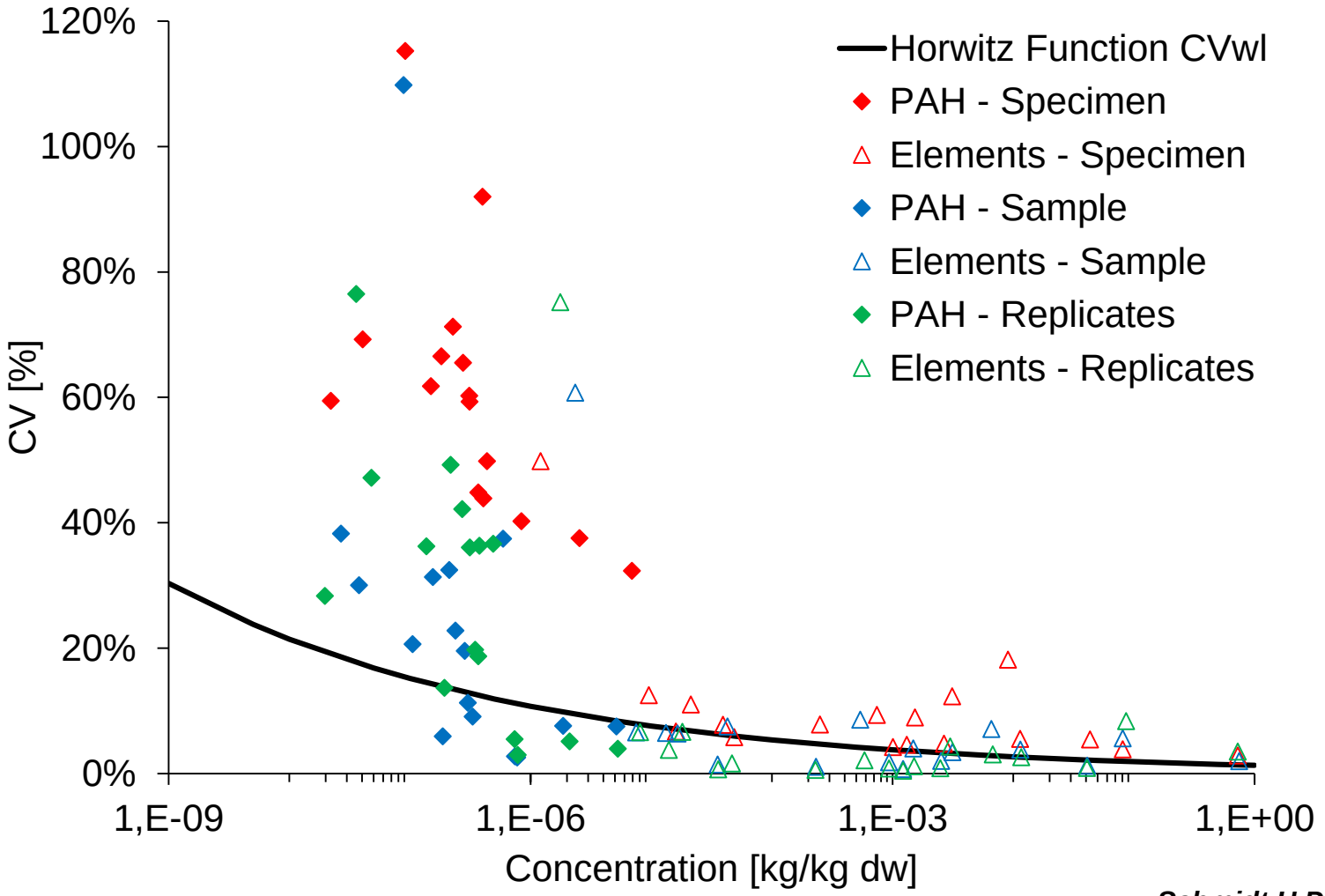
Activity (No.)	Year 1	Year 2	Year 3	Year 4
MC/SC Meetings	4	1 + 7		
STSMs	5	4		
Training Schools	1	1		
Workshops or Conferences	4	6 + 1		
Joint Publications	21	4 + 45		



Results vs. Objectives

- Biochar ring trial (3 BC to 23 labs in 12 countries =>733 data sets
- Representativity study / meta-analysis of biochar field trials across Europe
- Contribution to EC fertilizer directive (REFERTIL), protocol on biochar stability (IBI expert panel)
- Roadmap for a Biochar Archive & Standard Materials; a real-time online database is planned
- Participation in various BC books and special issues
- Roadmap for an Organization for Scientifically Responsible Biochar (OSRB)
- Creation of thematic crosslink groups (based on ain soil processes) for specific work in smaller groups

Significant Highlights in Science: Biochar ring trial



Schmidt H.P. et al. (in preparation).

Significant Highlights in Networking: European Biochar Certification process

- No consensus among scientists and stakeholders
- REFERTIL: Animal bone char (ABC)
- European Biochar Foundation: European Biochar Certificate
- TD1107: Public comments submitted to EC

Challenges

- Cross-link thematic focus groups to work on specific topics:
- G1: Soil biodiversity + ecotoxicity (Simon Jeffery, 6 members)
- G2: SOM (Heike Knicker, 11 members)
- G3: GHG (Giustino Tonon, 6 members)
- G4: Soil physical properties (Priit Tammeorg, 5 members)
- G5. Nutrient cycles + crop production (Ibrahim Ortas, 13 members)
- G6: Contamination + remediation (Gerhard Soja, 6 members)

Thank you !!!

cost

eBRN

Biochar
as option for
sustainable resource management

http://cost.european-biochar.org