

 SIXTH FRAMEWORK PROGRAMME

FOOTPRINT

Functional Tools for Pesticide Risk Assessment and Management

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Igor G. Dubus, FOOTPRINT co-ordinator
 FOOTPRINT final conference, Giessen, Germany








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A warm welcome to Giessen

> Our final FOOTPRINT event

- FOOTPRINT kick-off meeting in Orléans (F) in Feb. 06
- FOOTPRINT annual meeting in Copenhagen (DK) in Nov. 06
- FOOTPRINT annual meeting in Ispra (IT) in Nov. 07
- FOOTPRINT annual meeting in Wrocław (PL) in Nov. 08




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Sincere thanks to

> University Giessen for hosting the FOOTPRINT final conference

> Martin Bach, Stefan Reichenberger and their colleagues for the organisation of the event



> All of the participants for attending the final event

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Where are we coming from?



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What are we going to talk about and do over the next 2 days?

> This afternoon

- Overview of the project and update on recent developments
- Some of the FOOTPRINT science
- Demonstration of the three FOOT tools
- Social dinner at Burg Gleiberg

> Tomorrow

- Directive on the Sustainable Use of Pesticides
- Applications and beyond FOOTPRINT
- Break-out groups on application matters
- (Information relay workshops)

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A very special occasion for FOOTPRINT partners

> The final conference is always a landmark in the life of EU projects and we are no exception

> The final conference marks the (near)-end of the EU-funded project FOOTPRINT...

> ...but also the beginning of the deployment of the tools throughout Europe and the beginning of follow-up activities

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A quick first presentation

- > To give you an overarching view of the project
- > To tell you where we are
- > To quickly assess what the FOOTPRINT partners have achieved

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FOOTPRINT

An innovative EU-funded project to develop tools for pesticide risk assessment and management in Europe

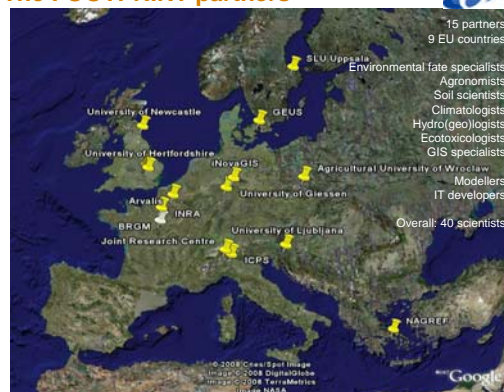
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What was FOOTPRINT?

- > An innovative research project funded by DG Research as part of FP6 (Box 8: Scientific Support for Policies)
- > 3.5-year project which started on 1 January 2006
- > A research project with VERY applied outcomes
- > Key focus is on the results (the FOOTPRINT tools)

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The FOOTPRINT partners



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Project overall objective

- > To develop a set of 3 computer tools
 - Which provide an assessment of the risk of transfer of pesticides to water resources for any location in Europe
 - Which are based on state-of-the-art research models
 - Which can be deployed anywhere in Europe
 - Which can be used by all stakeholders, from farmers in the field to policy- and decision-makers
- > Each of the 3 tools should allow users to
 - i) identify the dominant pathways and sources of pesticide contamination in the agricultural landscape.
 - ii) estimate levels of pesticide concentrations entering surface water and groundwater systems.
 - iii) make recommendations on how to reduce the pesticide contamination in water resources.

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3 tools, 3 scales, 3 user communities

> FOOT-NES

- National and EU scale
- EU and MS policy- and decision-makers, ministries, pesticide registration authorities

> FOOT-CRS

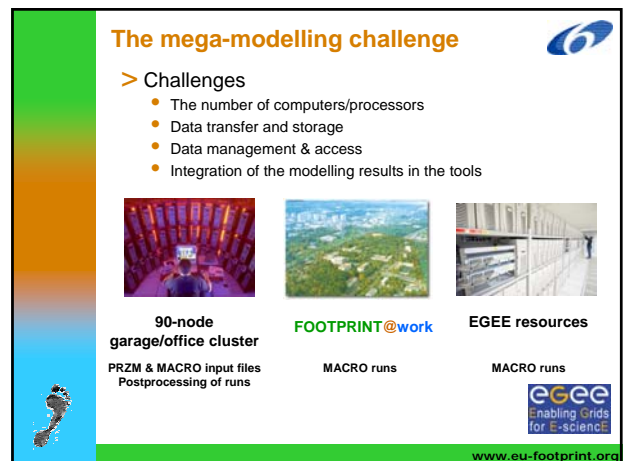
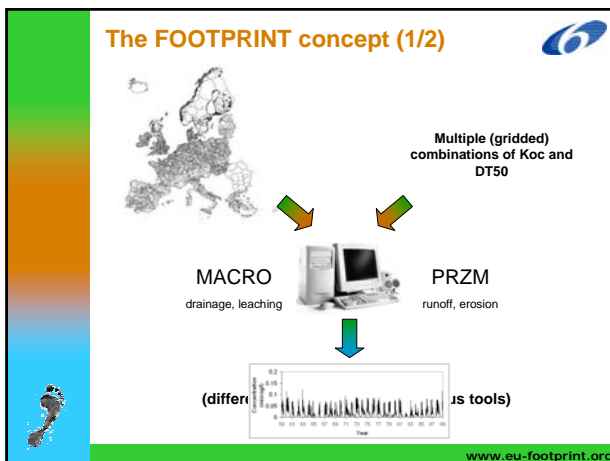
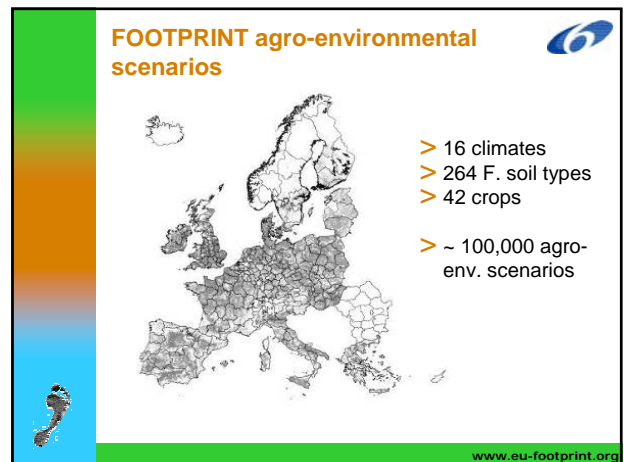
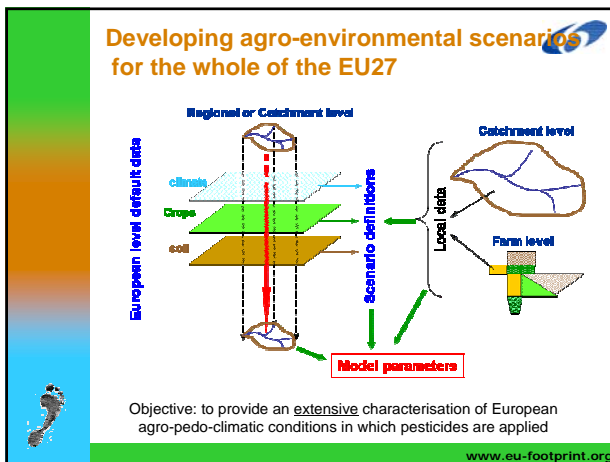
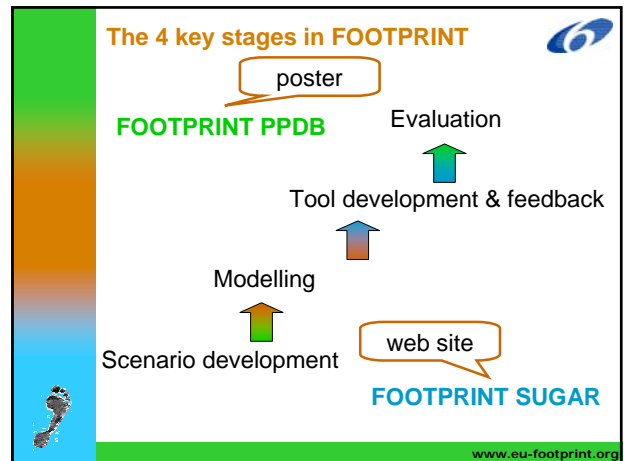
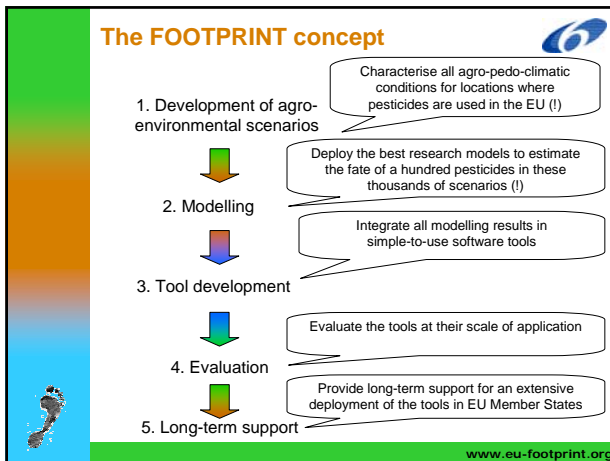
- Catchment and regional scale
- 'Water quality' managers, i.e. regional/local authorities, water agencies, water companies

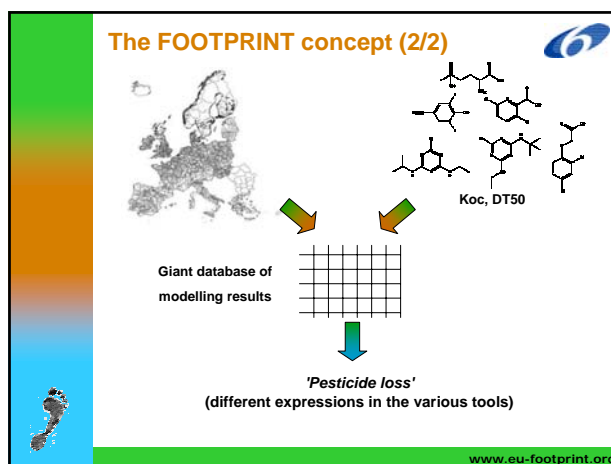
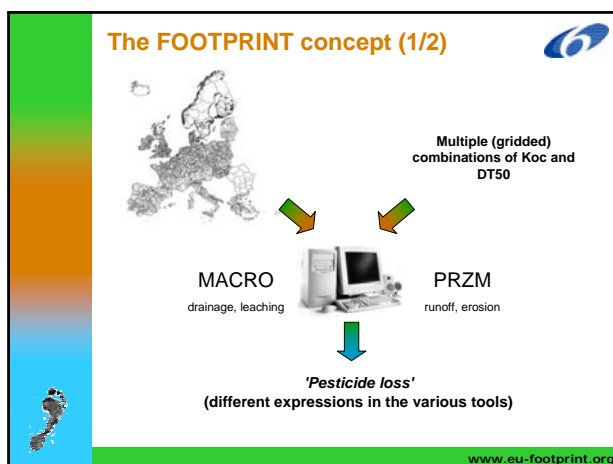
> FOOT-FS

- Farm scale
- Agricultural advisers and farmers

> All 3 tools are coherent across scales

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- ### Strengths of the FOOT tools
- > Coherence between the various scales
 - > Takes into account the diversity in agro-environmental conditions
 - > Relies on state-of-the-art research models
 - > Not research tools, but tools adapted to their users
 - > Coverage of all Member States
 - > The provision of default data
 - > Own soil data can be fed in
 - > The approach is generic and can be easily replicated for any country/region
 - > Integrates validated approach and methodologies
 - > Provision of robust environmental indicators which integrate interactions between climate, soil, cropping and pesticide properties
 - > Possibility to do what-if scenarios
 - > Long-term support for the tools
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- ### Unique features of the FOOT tools
- > The EU-wide component
 - > The coherence between scales
 - > The ability to identify those locations/fields and those practices which (do not) contribute to the contamination of water resources
 - > Reliable quantitative predictions for entries into GW and SW water systems through the use of state-of-the-art research models
 - > The possibility of a quick deployment
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- ### The FOOT tools for decision support
- > What-if testing / comparative assessment / hypothetical scenarios
 - > What is the likely influence on pesticide transfers of:
 - A reduction in application rate?
 - A change in application date?
 - A change in cropping? In crop protection strategies?
 - Product substitutions?
 - The implementation of mitigation strategies (grassed buffer strips, no-spray zones)
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FOOTPRINT

Update on the latest developments
in FOOTPRINT

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Changes made the consortium...



- > Resignation of GEOSYS (SME, FR) from the FOOTPRINT consortium who could not / did not want to fulfill its duties (development of FOOT-CRS)
- > A very lengthy process which involved the signing of an agreement between FOOTPRINT and GEOSYS
- > Standby on development work for several months
- > Development work for FOOT-CRS now undertaken by iNovaGIS (SME, Kassel, DE) who already developed FOOT-NES



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Update on tool development (1/2)



- > FOOT-FS (Farm scale)
 - Serious beta version available since last year
 - Debugging and optimisation underway
 - Integration of modelling runs
- > FOOT-NES (National and EU scale)
 - Beta version available
 - Modelling runs being gradually integrated
 - Still needs thorough testing and optimisation to increase speed of operation



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Update on tool development (2/2)



- > FOOT-CRS (catchment scale)
 - Development on standby for several months (change of partner, amendment to the Contract)
 - Beta version in preparation



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Modelling activities



- > Modelling effort much larger than anticipated in the first place and modelling started later than initially planned
- > Nearly all PRZM runs finished, but some post-processing still needed
- > MACRO modelling will not be fully completed by the end of June
- > New modelling resources sought and modelling results will be integrated in the tools as they become available (downloading from the FOOTPRINT web site)



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Release calendar



- > When are the tools going to be available?
- > Summer
 - new Dissemination web site
 - Thorough testing
 - Modelling
 - Support organisation in place
- > Autumn
 - Integration of the latest modelling runs
 - Final testing
- > By the end of the year
 - Release of FOOT-FS
 - Release of FOOT-NES
 - (Release of FOOT-CRS)
 - Training courses



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The next 3 months will be really intensive



- > Modelling
- > Optimisation of the FOOT tools
- > Writing up of all remaining deliverables
- > Final reporting to DG Research
- > Communication activities



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Beyond FOOTPRINT



- > Strong call from potential users to put a follow-up structure in place
- > Proposal for the creation of a FOOTPRINT dissemination/support group
 - Support for the deployment of the FOOTPRINT tools (technical support, training)
 - Maintenance of the tools in the long-term
 - Development of new tools which addresses nearly all limitations of the current FOOTPRINT tools
- > Currently on schedule to be operational when FOOTPRINT finishes in June 2009
- > More information to be provided tomorrow morning

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Achievements



- > FOOTPRINT PPDB, FOOTPRINT SUGAR, FOOTPRINT agro-environmental scenarios, FOOTPRINT model parameterisation
- > A series of software which can be deployed in all Member States to assess AND reduce the risk of pesticide transfer to water resources
- > Tools which can be adapted to integrate more precise data where available
- > An excellent framework for developing new versions
- > We are clearly conscious that further work is required
 - Evaluation of tools
 - Testing on the ground and at the large scale
 - Training programme
 - User guides

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Conclusions



- > A first in the transfer of knowledge and technology from innovative research to very applied tools for pesticides
- > Many potential applications and a genuine will to see the tools being used on a large scale across the EU
- > FOOTPRINT opens a very valuable opportunity to reduce the contamination of water resources across the EU and achieve the targets of the WFD and of the New Directive on the Sustainable Use of Pesticides

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