



European crop wild relative diversity and conservation

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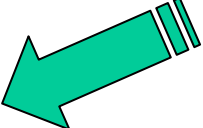
PGR Forum participants:

- National and regional institutes from 21 European countries
- + IPGRI
- + IUCN





Five work packages

- European crop wild relative assessment 
- Threat and conservation assessment
- *In situ* data management methodologies
- Population management methodologies
- Genetic erosion and genetic pollution methodologies



What is a crop wild relative (CWR)?

- A crop wild relative is a wild plant taxon that has an indirect use derived from its relatively close genetic relationship to a crop;



- this relationship is defined in terms of the CWR belonging to gene pools 1 or 2, or taxon groups 1 to 4 of the crop



Gene pools? Taxon groups?

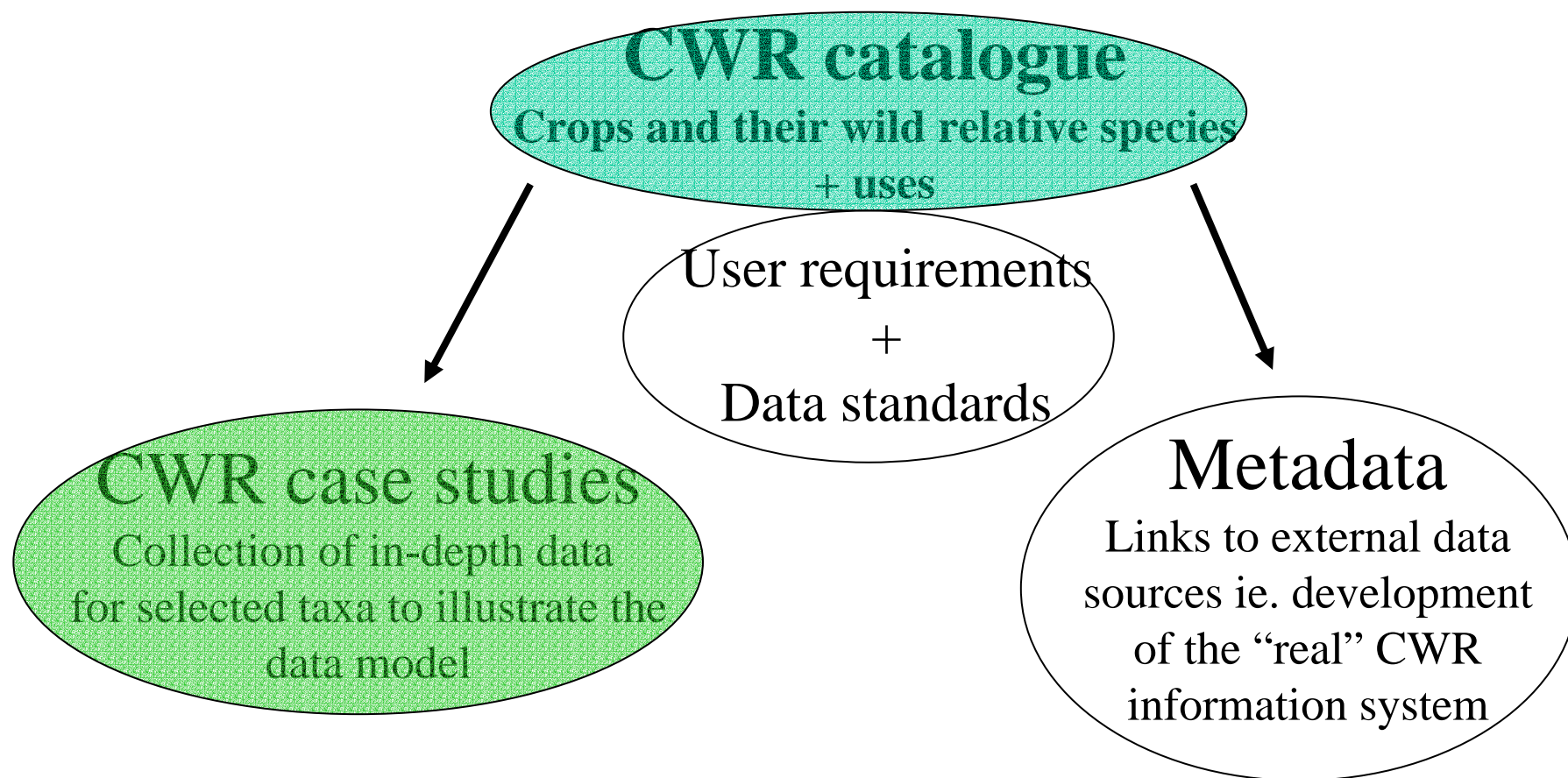
- GP-1 cultivated forms and the wild or weedy forms of the crop;
- GP-2 includes the coenospecies (gene transfer possible)
- GP-3 includes species from which gene transfer is impossible



- Taxon Group 1a: the crop
- Taxon Group 1b: same species as crop
- Taxon Group 2: same series or section
- Taxon Group 3: same subgenus
- Taxon Group 4: same genus
- Taxon Group 5: different genus to the crop

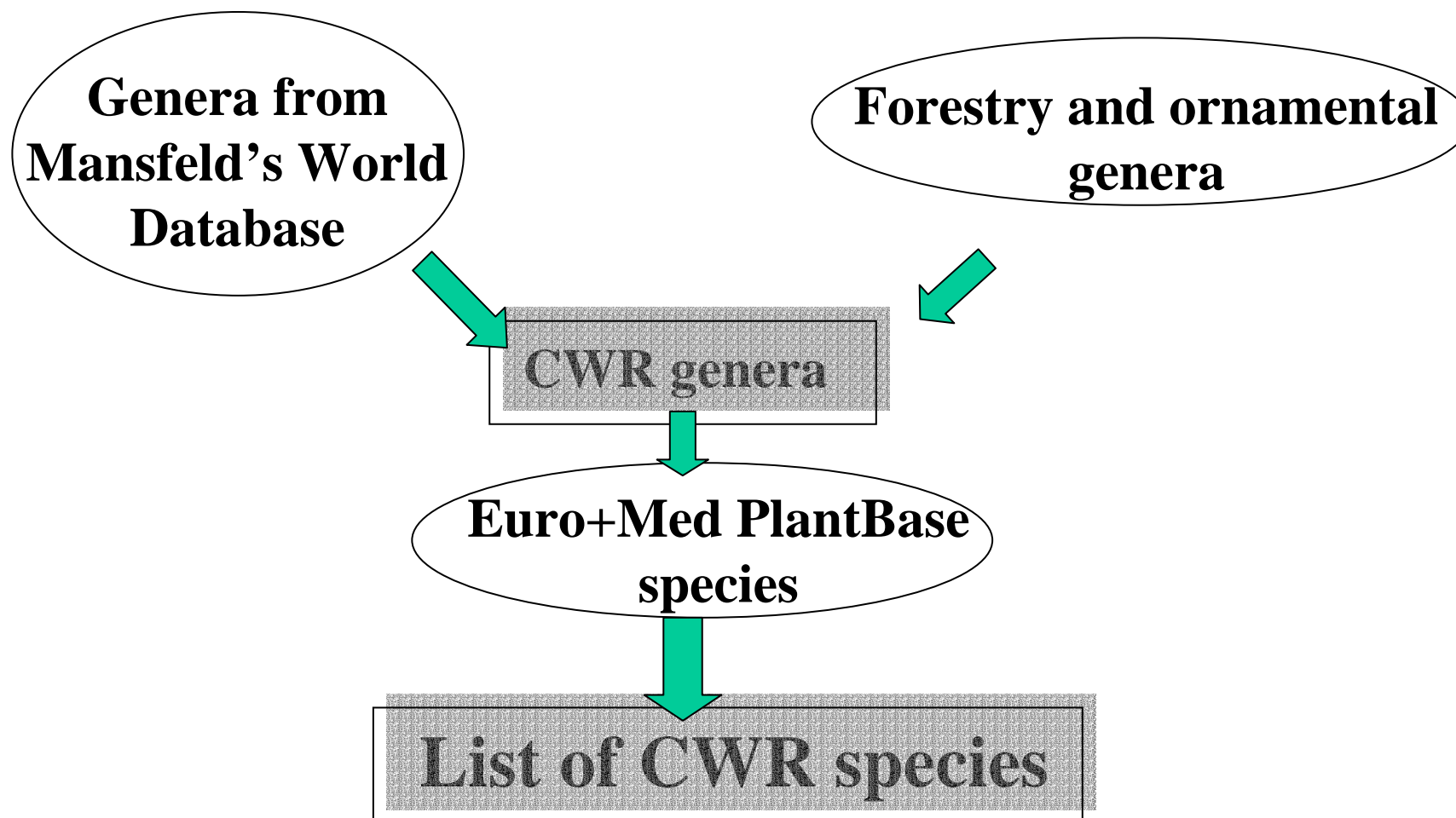


The European CWR Database





How to generate the CWR list?





Data sources

- Two major databases:
 - Euro+Med PlantBase (www.euromed.org.uk)
 - Mansfeld's World Database of Agricultural and Horticultural Crops (<http://mansfeld.ipk-gatersleben.de/>)
- Forestry genera:
 - Schultze-Motel (1966) (Enumeration of cultivated forest plant species)
- Ornamental genera:
 - Community Plant Variety Office (www.cpvo.eu.int)




CWR list Ver.3.1: summary statistics

	Families	Genera	Species
E+M filtered	215	2,422	30,729
Crops (Mansfeld)	157	843	19,091
Forestry	54	135	2,798
Ornamental	87	227	7,388
All groups	164	920*	20,127

*106 genera are common to Mansfeld and forestry lists;
166 genera are common to Mansfeld and ornamental lists




Further work on the CWR list

- Establishment of Population Management Methodologies
- Genetic Erosion and Pollution Assessment Methodologies
- Threat and Conservation Assessment
- But..... 



These tasks are substantial



- There are over 20,000 CWR species in Europe
- These must be prioritised
- How to do? 



Prioritisation is needed:

- Which species are under greatest threat
 - Red data assessment?
- Need for indicators of loss/erosion
 - In reality proxy indicators of genetic erosion
- Prioritise in terms of economic importance?

CBD 2010 targets and WS5

CWR list &
Euro+Med

