

TIME, COST and MANPOWER ESTIMATES

- Note** 1. The estimated durations do not imply full-time and continuous activity
 2. All estimates conservative/realistic
 3. Working Group & Project Steering Committee communication mostly by email

	Activity Description	Nr people	Man-	Month	Duration		COMMENT
		involved	months	Starting	months	Finished	
-1	Project initiating/preparing	5	3	-3	3	0	Working group activity
0	Project commences			0	16	16	Depending on manpower allocated
1	System Specifications	3	3	0	3	3	All participants will be involved to some extent
2	System Programming						
3	Programming Design phase	2	2	1	3	4	includes review, etc.
4	Coding (general)	2	6	2	10	12	includes debugging, etc.
5	Imaging&Graphics	2	4	2	9	11	
6	Data Base	2	4	2	8	10	
7	Printout (graphical&symbolic)	2	3	3	6	9	
8	Speech system	1	2	8	3	11	develop one-way audio; two-way optional
9	Internet linking	1	3	8	3	11	
10	Mathematical modelling/development	2	4	3	7	10	includes model testing
11	Farm&Animal Database	2	3	3	6	9	data acquisition
12	Symbolic/graphical design	1	1	1	8	9	
13	Speech data base set-up	2	2	8	4	12	Speech data base (English, Tswana, etc)
14	On-farm experim./verifying/testing.	3	3	10	6	16	Several trips to farms
15	Project admin&secretarial	1	4	1	15	16	
16	Technical Consultancy		5		Continuous		
17	Project Manag./Co-ordination	1	5		Continuous		
18	Project complete		54	Total duration:		16	Estimate of total nr of specialists involved: 16

LABOUR COSTS

Monthly Rate >

10

540 <<< Total in kiloEuro

50 <<E.hourly(*200 manmonthhours)
 rate = average low to high qualified

Note: 1. Only when the Working Group has completed its task the required manmonths in the above table as well as the numbers and amounts hereafter can be determined accurately.

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1	Laptop computers+software	3	5	For on the farm testing
2	Motor vehicle, one-year use	1	10	4*4 buy or rent
3	Travel&Lodging 1 nr of trips>>	5	10	For on the farm testing: each trip 3 men * 3days
4	Travel&Lodging 2 nr of meetings>	8	20	Meetings Working Group&Project Steering Committee
5				
6	Contingencies		30	%of total costs. Probably smaller after more accurate estimates.
TOTAL:			75	

TOTAL PROJECT COSTS: 615

Speech system costs(develop+database) 40 The speech system is actually a luxurious, although useful, add-on. Without it the project will be reduced with about 6%

TOTAL PROJECT COSTS (REVISED): 575

	Project Milestones	Month after commencing	DELIVERABLES
1	Demonstrable system	8	Realistic I/O with general Database data
2	Demonstrable system, all specs met.	12	Accurate results with specific farm data
3	System complete	16	Demonstration on the farm.