

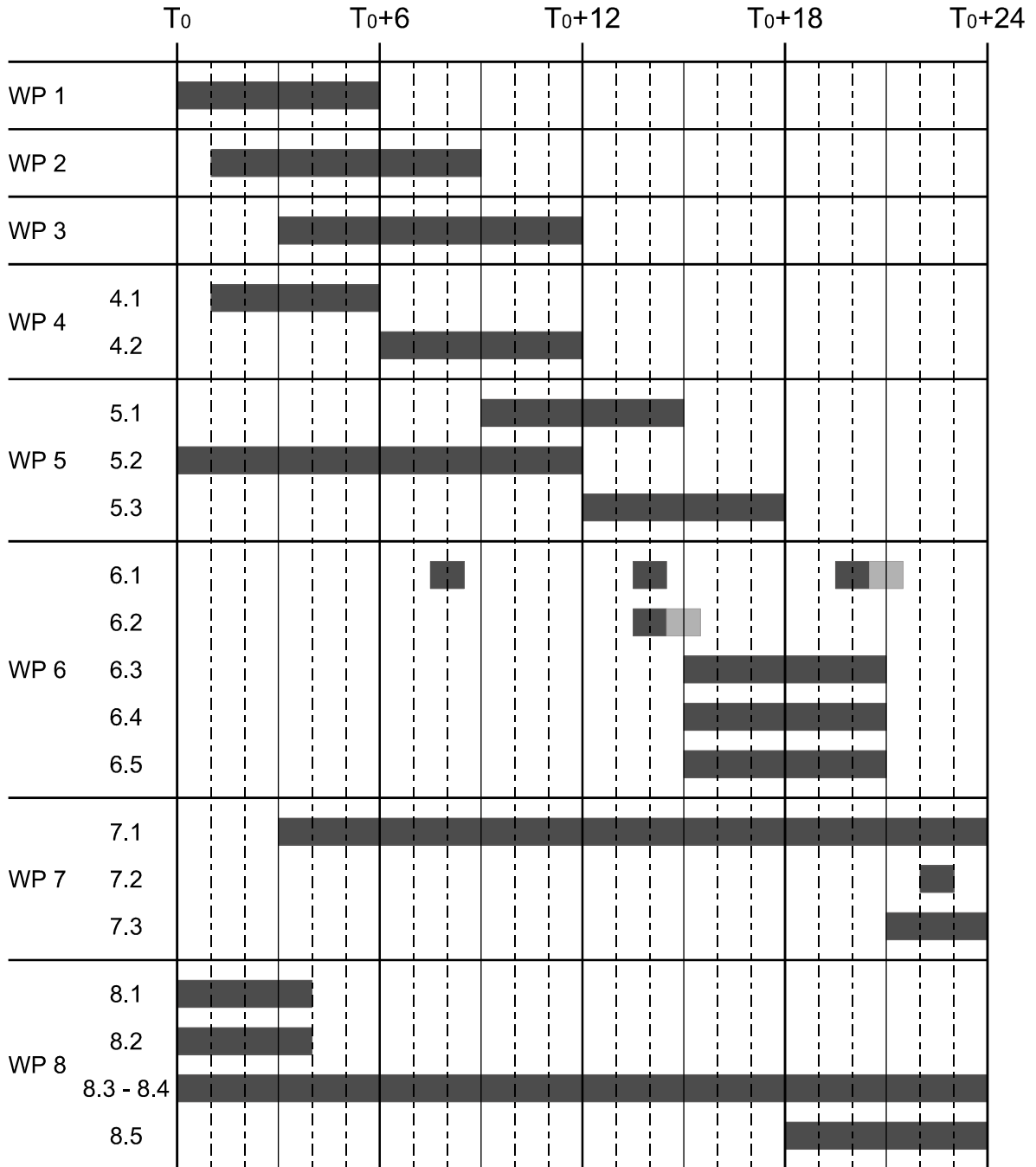
EUSUSTEL

meeting Brussels September 19, 2005

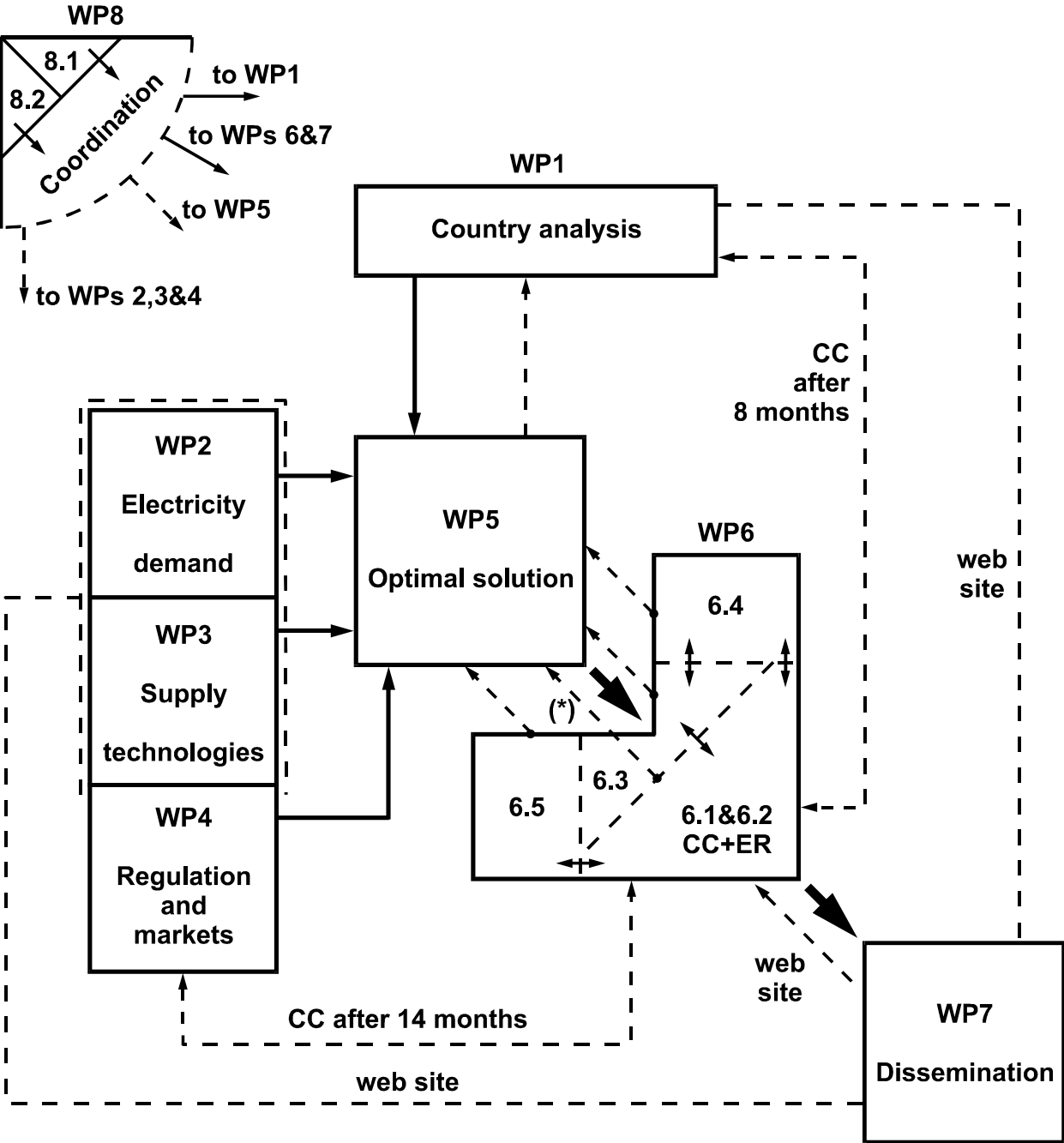
Plenary Meeting for all EU-SUSTEL Partners

12:00h	Convening of most meeting participants. Sandwich lunch.	
13:00h	Welcome and state of affairs of project Pre-meeting status	(W. D'haeseleer; 15')
13:15h	WP8: Boundary Conditions Concept Sustainability	(W. D'haeseleer, 10') (A. Voss; 15')
13:40h	WP1: Overview results discussion Discussion	(L. Cosijns; 25')
14:05h	WP2: State of affairs & WP evolution Discussion	(U. Farinelli; 45')
14:50h	WP3: State of affairs & WP evolution Discussion	(P. Lund; 45')
15:35h	WP4: State of affairs & WP evolution Discussion	(R. Belmans; 45')
16:20h	Coffee break	
16:40h	WP5: State of affairs & WP evolution Discussion	(A. Voss; 45')
17:25h	CEU: Comments by the Commission - On project contents - On administrative matters	(D. Rossetti; 15')
17:40h	PM: Administrative issues - Consortium Agreement - Deliverables - Financial Issues - Any other business	(W. D'haeseleer; 30')
18:10h	PM: Summary of state of affairs - Post-meeting status - Further Planning - Further agreements & commitments - General discussion - Any other business	(W. D'haeseleer; 50')
19:30h	Dinner offered by EURELECTRIC (Restaurant Tassili, rue du Fossé au Loups 11)	

Planning and timetable for the work packages



Graphical presentation and interaction of the work packages



Distribution of work

Analytical breakdown of person effort per WP

—Based on a workload of an “average” researcher—
“Fictitious Work load” (differs from allocated pm)

Work package 1: Country-wise analysis

The proposed distribution follows the rules:

project leader = BEL = 2 pm

1 country = 0.75 pm

2 reasonable size countries = 1.25 pm

2 small countries = 1.00 pm

3 small countries = 1.50 pm

5 reasonable size countries = 3.00 pm (1.5 + 1.5)

Sub 1.1: BeNeLux	partner from BEL	<i>BEL = 1.25 pm</i>
Sub 1.2: Germany & Austria	partner from DEU	<i>DEU = 1.25 pm</i>
Sub 1.3: Finland	partner from FIN	<i>FIN = 0.75 pm</i>
Sub 1.4: Greece	partner from GRC	<i>GRC = 0.75 pm</i>
Sub 1.5: Sweden	partner from SWE	<i>SWE = 0.75 pm</i>
Sub 1.6: Italy	partner from ITA	<i>ITA = 0.75 pm</i>
Sub 1.7: UK & Ireland	partner from GBR	<i>GBR = 1.25 pm</i>
Sub 1.8: France	partner from FRA	<i>FRA = 0.75 pm</i>
Sub 1.9: Spain & Portugal	partner from ESP	<i>ESP = 1.25 pm</i>
Sub 1.10: Denmark	partner from DNK	<i>DNK = 0.75 pm</i>
Sub 1.11: Baltic States	partner from FIN	<i>FIN = 1.50 pm</i>
Sub 1.12: Cyprus & Malta	partner from GRC	<i>GRC = 1.00 pm</i>
Sub 1.13: Hungary, Poland, Slovakia, Slovenia and Czech Republic	partner from GRC, BEL & DEU	<i>GRC = 1.50 pm, BEL = 0.90pm, DEU = 0.60 pm</i>

Work package 2: Anticipation of future electricity demand

Project leader = ITA = 1 pm

- 2.1 Economic evolution of the European Union (as part of a world-wide economy), primary energy provision and 'projected' fuel prices
ITA = 1 pm; GRC = 1 pm
- 2.2 Evolution of demand for energy services and the influence on electricity demand
ITA = 2 pm; BEL = 1 pm; GBR = 1 pm
- 2.3 Rational use of electricity, energy efficiency of end-use technologies and demand side management
ITA = 1 pm; BEL = 1 pm; GBR = 1 pm

Work package 3: Electricity generation technologies and system integration

Project leader = FIN = 2 pm

- 3.1 Fossil-based electricity generation technologies:
 - 1. Coal fired technologies *DEU = 0.5 pm; DNK = 0.5 pm*
 - 2. Oil & gas fired technologies *BEL = 0.5 pm*
 - 3. Combined heat and power *BEL = 0.5 pm; DNK = 0.5 pm*
 - 4. CO2 capture and storage *DEU = 0.5 pm*
 - Environmental aspects of the above* *ESP = 0.75 pm*
- 3.2 Nuclear electricity generation
 - 1. Nuclear fission *FRA = 2.00 pm*
 - 2. Nuclear fusion (limited scope) *BEL = 0.25 pm*
- 3.3 Renewable flows & 'alternative' technologies & carriers
General considerations (potential, fluctuating nature, regional issues,...)
 - SWE = 0.50 pm; DNK = 0.50 pm; FRA = 0.50 pm*
 - 1. Wind power *DNK = 1 pm*
 - 2. Photo-Voltaic conversion *FIN = 1 pm*
 - 3. Biomass applications (including waste)
FIN = 0.50 pm; GBR = 0.50 pm;
Environmental aspects ESP = 0.25 pm
 - 4. Hydro power *SWE = 0.50 pm*
 - 5. Geothermal conversion *SWE = 0.50 pm*
 - 6. Fuel cells *GBR = 0.75 pm; BEL = 0.50 pm*
 - 7. Hydrogen economy *GBR = 0.75 pm; BEL = 0.50 pm*
 - 8. Electricity storage *SWE = 1 pm*
 - 9. Less-conventional and speculative forms of renewables (ocean currents, space solar,)
SWE = 1 pm; FIN = 1 pm
- 3.4 System integration
 - 1. Integration of centralised and decentralised generation; influence on the grid
BEL = 2 pm; GBR = 1 pm; SWE = 0.5 pm
 - 2. Greenhouse-gas emissions due to interaction centralised and decentralised generation (because of operation-time effects and investment consequences)
BEL = 1.25 pm

Work package 4: Regulatory and Market Framework of Energy Markets

Project leader = BEL = 1 pm

- 4.1 Analysis of the current legislation & regulation of the liberalised market, the directives on obligatory renewables and CHP, and on emission trading
BEL = 1.25 pm; DNK = 0.5 pm
- 4.2 Specification of 'boundary conditions' and 'guidelines' for proper functioning of future energy markets
BEL = 0.75 pm; DNK = 0.50 pm

Work package 5: Most optimal solution for electricity provision

Project leader = DEU = 2 pm

- 5.1 Determination of the overall static social cost for electricity
 - i) Summarise private cost for generation technologies and project to the future, taking into account technology diffusion *FIN = 1 pm*
 - ii) Considerations on 'shadow costs' such as back-up costs, risk premium etc
SWE = 0.5 pm; BEL = 0.5 pm; DEU = 0.25 pm
 - iii) Identification of the differences in CO₂ emissions due to electricity generation, depending on the different generation systems in the EU-25 countries
BEL = 1 pm; GBR = 0.5 pm
 - iv) Determination of global external costs
DEU = 2 pm; ESP = 2 pm; FRA (nuc) = 0.25 pm
- 5.2 Comparison and evaluation of simulation models & codes and existing scenarios for electricity generation
*DEU = 1 pm; GRC = 1 pm; BEL = 1 pm;
DNK = 0.50 pm*
- 5.3 Performing and interpretation of four (contrasting) scenarios with the (two) most appropriate models (with 'improved' input data)
 - i) Scenario 1: according to present policy in different EU-25 countries (maybe revisiting of existing scenarios);
 - ii) Scenario 2: e.g., total nuclear phase out in EU-25 with stringent post-Kyoto limits;
 - iii) Scenario 3: e.g., overall nuclear renaissance in EU-25 with stringent post Kyoto limits;
 - iv) Scenario 4: based on the interpretation and conclusion of Scenarios 1, 2 & 3.
*DEU = 2 pm; GRC = 2 pm; BEL = 2 pm
DNK = 0.50 pm; GBR = 0.50 pm (interpret and feedback)
All others = 0.25 pm (interpret)*

Work package 6: Compatibility check & validation

Project leader = BEL = 2 pm

- 6.1 Timely consultations with Consultative Committee
*BEL = 1 pm; ITA, FIN & DEU = 0.50 pm;
others = 0.25 pm*
- 6.2 Mid-term assessment peer review of the results
- 6.3 Compatibility with liberalisation of the electricity and gas markets
BEL = 1 pm; DNK = 1 pm
- 6.4 Cross check concerning security of supply
FRA = 0.50 pm
- 6.5 Compatibility and validation with other international studies
FRA = 1 pm; BEL = 1 pm; GRC = 1 pm

Work package 7: Dissemination of results

Project leader = BEL = 1 pm

- 7.1 Exchange of information through a website
BEL = 1.5 pm
- 7.2 Organisation of International Seminar
*BEL = 1.25 pm; ITA, FIN & DEU = 0.5 pm;
others 0.25 pm*
- 7.3 Coordination and editing of final public document
BEL = 1 pm

Work package 8: Project guidance, coordination and management

- 8.1 Definition of scope, boundary conditions & hypotheses
BEL = 1 pm
- 8.2 Development of conceptual framework for sustainable electricity supply
DEU = 1 pm
- 8.3 Practical organisation of CC meetings and international seminar
- 8.4 Overall project coordination & management
BEL = 3 pm
- 8.5 Editing of final technical report
BEL = 2 pm

Deliverables list

Del. no.	Deliverable name	WP no.	Lead participant	Nature [1]	Delivery date (proj. month) [2]
D 1.1.1	Report on Belgium	1	1	S	6
D 1.1.2	Report on Luxembourg	1	1	S	6
D 1.1.3	Report on Netherlands	1	1	S	6
D 1.2.1	Report on Germany	1	2	S	6
D 1.2.2	Report on Austria	1	2	S	6
D 1.3	Report on Finland	1	3	S	6
D 1.4	Report on Greece	1	4	S	6
D 1.5	Report on Sweden	1	5	S	6
D 1.6	Report on Italy	1	6	S	6
D 1.7.1	Report on UK	1	7	S	6
D 1.7.2	Report on Ireland	1	7	S	6
D 1.8	Report on France	1	8	S	6
D 1.9.1	Report on Spain	1	9	S	6
D 1.9.2	Report on Portugal	1	9	S	6
D 1.10	Report on Denmark	1	10	S	6
D 1.11.1	Report on Lithuania	1	3	S	6
D 1.11.2	Report on Latvia	1	3	S	6
D 1.11.3	Report on Estonia	1	3	S	6

[1] Please indicate the nature of the deliverable using one of the following codes:

R = Report

S = Sub report

[2] Month in which the deliverables will be available. Month 1 marking the start of the project, and all delivery dates being relative to this start date.

Del. no.	Deliverable name	WP no.	Lead participant	Nature [1]	Delivery date (proj. month) [2]
D 1.12.1	Report on Malta	1	4	S	6
D 1.12.2	Report on Cyprus	1	4	S	6
D 1.13.1	Report on Hungary	1	4, 2	S	6
D 1.13.2	Report on Poland	1	4, 1	S	6
D 1.13.3	Report on Slovakia	1	4, 1	S	6
D 1.13.4	Report on Slovenia	1	4, 1	S	6
D 1.13.5	Report on Czech Republic	1	4, 2	S	6
D 1	Report on the countries of the EU-25	1	1	R	6
D 2.1	Economic conditions and primary fuel	2	6	S	9
D 2.2	Energy services and electricity demand	2	6	S	9
D 2.3	Energy efficiency and DSM measures	2	6	S	9
D 2	Report on the future electricity demand	2	6	R	9
D 3.1.1	Coal fired technologies	3	2, 10	S	12
D 3.1.2	Oil & gas fired technologies	3	1	S	12
D 3.1.3	Combined heat & power	3	1, 10	S	12
D 3.1.4	CO2 capture & sequestration	3	2	S	12

Del. no.	Deliverable name	WP no.	Lead participant	Nature [1]	Delivery date (proj. month) [2]
D 3.1	Overview report on fossil-based electricity generation technologies	3	2	R	12
D 3.2.1	Nuclear fission	3	8	S	12
D 3.2.2	Nuclear fusion	3	1	S	12
D 3.2	Overview report on nuclear electricity generation	3	8	R	12
D 3.3.1	Wind power	3	10	S	12
D 3.3.2	Photo-voltaic	3	3	S	12
D 3.3.3	Biomass application	3	3,7	S	12
D 3.3.4	Hydro power	3	5	S	12
D 3.3.5	Geothermal conversion	3	5	S	12
D 3.3.6	Fuel cells	3	7	S	12
D 3.3.7	Hydrogen economy	3	7	S	12
D 3.3.8	Electricity storage	3	5	S	12
D 3.3.9	Unconventional & speculative renewables	3	5, 3	S	12
D 3.3	Overview report on renewable flows & 'alternative' technologies & carriers	3	3	R	12

Del. no.	Deliverable name	WP no.	Lead participant	Nature [1]	Delivery date (proj. month) [2]
D 3.4.1	Integration of centralised and decentralised generation	3	1	S	12
D 3.4.2	GHG emission due to interaction centralised and decentralised generation	3	1	S	12
D 3.4	Overview report on system integration	3	3	R	12
D 4.1	Analysis of regulatory framework and liberalised markets	4	1	S	6
D 4.2	Guidelines for 'proper' electricity market	4	1	S	12
D 4	Report on regulatory framework in liberalised markets	4	1	R	12
D 5.1.1	Summary of private cost estimates	5	3	S	15
D 5.1.2	Relevance of 'shadow costs'	5	5, 1	S	15
D 5.1.3	System-related differences for GHG emissions	5	1	S	15
D 5.1.4	External costs	5	2, 9	S	15
D 5.1	Report on total static social cost	5	2	R	15

Del. no.	Deliverable name	WP no.	Lead participant	Nature [1]	Delivery date (proj. month) [2]
D 5.2	Report on evaluation simulation models and existing scenarios	5	2, 1, 4	R	15
D 5.3	Report on 4 scenarios and 'most optimal solution'	5	2, 1, 4	R	15
D 6.1	Conclusions from the Consultative Committee	6	1	R	21
D 6.2.1	Compatibility with liberalised markets	6	1, 10	S	21
D 6.2.2	Security of supply	6	8	S	21
D 6.2.3	Comparison with international studies	6	1, 4, 8	S	21
D 6.2	Report on quality checks	6	1	R	21
D 7	Final publishable document	7	1	R	24
D 8.1	Report establishing the scope, boundary conditions and hypotheses	8	1	R	4
D 8.2	Report on framework for sustainability	8	2	R	4
D 8.3	Final technical report	8	1	R	24