

I N D E X

	<u>Page</u>
INTRODUCTION	1 (yellow)
CHAPTER I - THE PLACE OF FUSION POWER IN THE FUTURE EUROPEAN ENERGY SCENE	
1.0 Introduction	5
1.1 European Energy Demand	6
1.2 New Potential Energy Sources	10
CHAPTER II - CONFINEMENT SCHEMES	
2.0 Introduction	15
The lines under investigation	
2.1 Magnetic Confinement	15
.1 Tokamaks	
.2 Stellarators	
.3 Axisymmetric toroidal pinches	
.4 High-beta stellarators	
.5 Linear theta pinch	
.6 Mirrors	
2.2 Plasma Focus	18
2.3 Inertial Confinement	19
.1 Laser, electron and ion beams	
2.4 Other Approaches	19
2.5 Selection of the Main Approach and of Alternative Lines	20

	<u>Page</u>	
CHAPTER III - PROGRAMME PLAN		
3.1 Introduction	23	
.1 Target		
.2 Starting point		
.3 Strategy		
.4 Programme plan		(
.5 Organization of the programme plan		g
.6 Time scale		r
3.2 The Programme Plan in Detail	30	e
.1 Large facilities	34	e
.2 Subprogrammes	42	n
.3 Summary network	67)
.4 Safety and environmental impact studies	66	
3.3 Contributory Activities	68	
3.4 Alternative Lines	70	
3.5 Basic Fusion Plasma Physics	71	
3.6 Manpower and Cost Evaluation	72 (pink)	

	<u>Page</u>
CHAPTER IV - SHORT-TERM REQUIREMENTS EMERGING FROM THE LONG-TERM PROGRAMME	
4.0 Introduction	77
4.1 Main Approach	77
.1 Overview	
.2 Scaling	
.3 Impurities, exhaust and fuelling	
.4 Plasma heating	
.5 Magnet development	
.6 Wall materials	
.7 Tritium technology	
.8 Blanket technology	
.9 Power and energy handling	
.10 System dynamics and control	
.11 Groups to be established for long-term tasks	
.12 Contributory activities of the main programme	
4.2 Alternative Lines	86
4.3 International Collaboration	87
CHAPTER V - SUMMARY	88 (yellow)
CHAPTER VI - ORGANIZATIONAL REQUIREMENTS (see end of INTRODUCTION)	
ANNEXES - I Expert Hearing on Radio Frequency Heating	
II Expert Hearing on Neutral Injection	
III Expert Hearing on Material Development	
IV Workshop on Cold Gas Blanket - Jutphaas	