



UNIVERSIDAD NACIONAL DE ENTRE RÍOS
FACULTAD DE INGENIERIA
CENTRO DE MEDIOS
BIBLIOTECA

Contents

Nº 2498

1	Introduction	11
2	Disability issues in Europe in the nineties	13
3	Technology transfer and service delivery in rehabilitation technology	17
3.1	Introduction	17
3.2	Origin of limitations in technology transfer and service delivery . .	18
3.3	Required knowledge	20
3.4	Requirements in research.	20
3.5	Production and marketing	21
4	Rehabilitation technology service delivery in Canada:	25
4.1	Introduction	25
4.2	Provincial Programs:	26
4.3	New directions and programs:	28
4.4	Statistical information:	28
4.5	Conclusions:	30
4.6	Authors	36
5	A system for delivery of technical aids for disabled persons in Czechoslovakia	37
5.1	Introduction	37
5.2	Analysis of the current situation	38
5.3	Conceptions	39
5.4	Conclusion	39
6	Supply and financing of technical aids for the disabled in Denmark	41
6.1	Introduction	41
6.2	A survey of the supply of technical aids	42

6.3	Main principles of the legislation	42
6.4	Rehabilitation	44
6.5	How to get information, advice and instructions?	45
6.6	The market of technical aids in Denmark	47
6.7	Recycling and stock management	47
6.8	Discussion	48
7	Systems for providing technical aids in Finland	49
7.1	Organization and basic structure	49
7.2	Technical aid units in central and university hospitals	51
7.3	Development of technical aid services in hospital districts	52
7.4	Costs of providing technical aids	52
7.5	Companies	53
7.6	Research activities	54
7.7	Rehabilitation engineering	55
7.8	REFERENCES	55
7.9	Authors	55
8	An overview of the provision system for technical aids and re-	
	habilitation engineering solutions in Greece	57
8.1	Introduction	57
8.2	Structure at national level	58
8.3	Functional assessment and professionals involved	58
8.4	Qualification of professionals	58
8.5	Technical aids and other rehabilitation engineering solutions pro-	
	vided	59
8.6	Procedure for the provision and rules of funding	59
8.7	Installation, fitting, training, follow up,	
	maintenance and support	60
8.8	Availability of technical aids in Greece	60
8.9	Information facilities and systems for professionals and users . . .	60
8.10	National agencies with central responsibilities within rehabilita-	
	tion engineering	60
9	Hungarian national presentation for the second workshop on re-	
	habilitation engineering	63
9.1	PROVISION PROCESS	63
9.2	Financing and purchasing	66
9.3	Producers and dealers	69
9.4	National/regional structure	69
9.5	Annex	70
9.6	Author	71

10 The provision of technical aids in Italy: present situation and new models	73
10.1 Legislation background	73
10.2 The current process of provision of technical aids	74
10.3 The prosthetic assistance scheme	75
10.4 Discussion of the current provision system	76
10.5 Siva and its computerized information system concerning technical aids	78
10.6 An innovative model: The network of technical aid information centres	80
10.7 Education of rehabilitation professionals in the SIVA network	81
10.8 The market of technical aids in Italy	83
10.9 Testing and research activities	84
10.10References	86
11 Problems of social and intellectual rehabilitation for disabled children in Latvia	89
11.1 Introduction	89
11.2 Several structural characteristics of the children disability in Latvia	90
11.3 Disabled children's social rehabilitation	91
11.4 Intellectual rehabilitation problems	91
11.5 Baltic regional information centre creation perspectives. Financial information and methodical problems	92
12 The Dutch system for providing technical aids to individual users. Marketing and purchasing systems	93
12.1 General remarks on the Dutch system	93
12.2 General characteristics of the Dutch system	94
12.3 Who are the main actors	95
12.4 Some more details of the system and some of the main arrangements.	96
12.5 Closing remarks with a view on the future	98
13 Provision of technical aids and other rehabilitation engineering services in Norway	101
13.1 Introduction	101
13.2 Provision on rehabilitation engineering services	102
13.3 Financing and purchasing of technical aids	105
13.4 Producers/Dealers	106
13.5 National/regional structure	107
13.6 Names and Addresses	109

14 System for providing assistive devices and other rehabilitation engineering solutions to individual users in Sweden	111
14.1 Provision process	111
14.2 Financing/purchasing	117
14.3 Central agencies	119
14.4 Trends for the future	121
14.5 REFERENCES	123
14.6 ATTACHMENT A	125
14.7 ATTACHMENT B	126
14.8 ATTACHMENT C	127
15 Toward a national system of rehabilitation technology service delivery in the United States	129
15.1 Introduction	129
15.2 Background on the Provision of Rehabilitation Technology in the United States	130
15.3 Consumer responsive technology-related assistance	130
15.4 Goals of the State Grants Program	131
15.5 Technical assistance to the State Grants	133
15.6 Funding study	134
15.7 Nationwide assistive technology information and referral network	135
15.8 Demonstration and innovation projects	135
15.9 Related government action	136
15.10 Section 508 of the Rehabilitation Act	136
15.11 Americans with Disabilities Act	137
15.12 Conclusions and new directions	138
15.13 Further information	138
15.14 Author	139
15.15 Acknowledgment	139
16 National presentation - Yugoslavia	141
16.1 Introduction	141
16.2 Provision process	141
16.3 Financing/purchasing	143
16.4 Procedure/dealers	143
16.5 National/regional structure	143
16.6 Conclusion	143
16.7 Author	144

17 A philanthropic system and quantitative approach to surgical rehabilitation of children with cerebral palsy	145
17.1 Introduction	145
17.2 Service provision	146
17.3 Financial support	146
17.4 Research and educational development	146
17.5 Quantitative approach to surgical rehabilitation	147
17.6 Background - quantitative approach	147
17.7 Strength and resistance to motion	147
17.8 Postural stability	149
17.9 Motion analysis	149
17.10 Electromyography	152
17.11 Clinical evaluation and control	152
17.12 Upper extremity motor skills evaluation	152
17.13 Data Base management	152
17.14 Results - upper extremity tests	153
17.15 Results - hamstring study	154
17.16 Summary	155
17.17 Acknowledgements	155
17.18 References	155
17.19 Authors	156
18 Computers in rehabilitation of children with cerebral palsy: hopes and barriers	157
18.1 Introduction	157
18.2 Integrated computer system of children rehabilitation	158
18.3 Hopes and barriers of the computer system	160
18.4 References	161
19 Expert system for the prescription of above-knee prosthesis	163
20 Handynet Information System	171
20.1 The Handynet European Information System	171
20.2 Handynet and its partners	172
20.3 The importance of functioning in a network	173
20.4 Handynet - interaction	174
20.5 The perspectives for 1991	174
20.6 Handynet and the utilisation of new technology	174
21 Technology and accessibility, a logical chain	177

22 Technology assessment: the challenge for rehabilitation engineering	181
22.1 Introduction	181
22.2 Background	181
22.3 Technology	182
22.4 Stage of diffusion of technology	184
22.5 Assessment orientation	184
22.6 Assessment organizations	185
22.7 Assessment expertise	185
22.8 Technological spin-offs	185
22.9 Properties assessed	186
22.10 Efficacy versus effectiveness	186
22.11 Assessment methods	187
22.12 Types of cost study	188
22.13 Cost study characteristics	189
22.14 Quality of life measures	191
22.15 Conclusion	192
22.16 References	193
22.17 Author	194
23 Cost benefit analysis of vocational rehabilitation based on Norwegian data.	195
23.1 Introduction	195
23.2 The public budgets.	196
23.3 What can be done?	197
23.4 CBA of four different rehabilitation institutions.	200
24 Technology assessment of assistive devices, exemplified by the rehabilitation of stroke patients	203
24.1 Technology assessment in rehabilitation engineering	203
24.2 The selection process	205
24.3 Dimensions of the assessment	205
24.4 Aspects on the economy	206
24.5 The stroke study	207
24.6 References	212
24.7 Authors	213
25 Cost effectiveness of specialized and custom seating in the United States	215
25.1 Introduction	215
25.2 Confounding factors	216
25.3 Need for specialized and custom seating	217
25.4 Current seating technology	220

25.5	Limitations of current technology	221
25.6	Potential for advanced seating technology	222
25.7	Summary	223
25.8	Selected references	223
25.9	Authors	225
26	Assessment of health care technology; cost-effectiveness of technical aids for disabled people	227
26.1	Rehabilitation engineering	227
26.2	Goals of the study	229
26.3	The first phase	229
26.4	Conclusions	231
26.5	References:	231
26.6	Authors	231
27	The status of assistance to the disabled in Italy: cost-benefit relationship	235
27.1	Introduction	235
27.2	Demography	236
27.3	Education	237
27.4	Causes of disability	237
27.5	Conditions of disability	237
27.6	Cost and financing	238
27.7	Prostheses and technical assistance	238
27.8	Research and development	239
27.9	Strategic objectives	240
28	"Helping Right" International Health and Humanitarian Foundation	243
28.1	Introduction	243
28.2	Basic concept of health care services	244
28.3	Structure of the proposed health care service	245
28.4	References	246
	Program	247
	List of participants	251