

Index

# Table of Contents

Table of Contents ..... i

List of Figures ..... v

Executive summary ..... 1

1 Healthcare and social care in Europe ..... 3

1.1 Introduction ..... 3

    1.1.1 The ageing population ..... 3

    1.1.2 Metabolic syndrome and lifestyle related diseases ..... 5

1.2 Chronic diseases ..... 5

    1.2.1 Cardiovascular diseases ..... 7

    1.2.2 Hypertension ..... 8

    1.2.3 Chronic respiratory diseases ..... 8

    1.2.4 Diabetes ..... 9

1.3 Medical conditions ..... 10

    1.3.1 Autism ..... 10

    1.3.2 Dementia ..... 11

    1.3.3 Epilepsy ..... 12

    1.3.4 Other cognitive and physical disabilities ..... 12

1.4 Healthcare and social care systems ..... 12

    1.4.1 Healthcare systems ..... 14

    1.4.2 Social care systems ..... 16

1.5 The regulatory environment ..... 18

    1.5.1 Medical device regulations ..... 19

    1.5.2 Privacy regulations ..... 21

2 Traditional telecare solutions ..... 23

2.1 Market overview ..... 23

    2.1.1 Form factors and use cases ..... 24

    2.1.2 Value chain ..... 25

    2.1.3 Competitive landscape ..... 27

2.2	Solution providers .....	29
2.2.1	Azur Soft .....	30
2.2.2	TeleAlarm (Bosch Healthcare) .....	30
2.2.3	Centra Pulse .....	31
2.2.4	Chubb Community Care .....	32
2.2.5	Eurocross .....	33
2.2.6	Legrand (Tynetec, Jontek, Intervox and Neat) .....	33
2.2.7	TBS Group .....	37
2.2.8	Tunstall Healthcare Group .....	38
2.2.9	Verklizan .....	40
2.2.10	Urmet ATE .....	42
3	Next-generation telecare solutions .....	43
3.1	Market overview .....	43
3.1.1	Form factors and use cases .....	44
3.1.2	Value chain .....	48
3.1.3	Competitive landscape .....	49
3.2	Solution providers .....	51
3.2.1	Doro Care .....	52
3.2.2	Encore Healthcare (Evermind) .....	54
3.2.3	Everon .....	55
3.2.4	Evondos .....	56
3.2.5	Essence Group .....	58
3.2.6	Innospense .....	60
3.2.7	Just Checking .....	62
3.2.8	KPN .....	62
3.2.9	Limmex .....	64
3.2.10	Greatcall (Lively) .....	65
3.2.11	LOSTnFOUND .....	66
3.2.12	Medicpen .....	67
3.2.13	Merck Group .....	67
3.2.14	Navigil .....	69
3.2.15	Nortek (Numera) .....	70

- 3.2.16 Oysta Technology ..... 72
- 3.2.17 Philips ..... 73
- 3.2.18 Posifon..... 75
- 3.2.19 Telecom Design (Vitalbase) ..... 76
- 3.2.20 Vivago..... 77
- 4 Telehealth solutions ..... 81
- 4.1 Market overview ..... 81
  - 4.1.1 Form factors and use cases..... 82
  - 4.1.2 Value chain..... 84
  - 4.1.3 Competitive landscape..... 86
- 4.2 Solution providers ..... 88
  - 4.2.1 Alere ..... 90
  - 4.2.2 Apple HealthKit..... 91
  - 4.2.3 BePatient ..... 92
  - 4.2.4 BodyTel ..... 94
  - 4.2.5 BT Group..... 95
  - 4.2.6 Comarch..... 96
  - 4.2.7 DXC Technology (CSC Scandihealth) ..... 97
  - 4.2.8 Google Fit..... 98
  - 4.2.9 H2AD ..... 99
  - 4.2.10 Haltian ..... 101
  - 4.2.11 Hope Care ..... 102
  - 4.2.12 iHealth (eDevice) ..... 102
  - 4.2.13 Medic4All..... 105
  - 4.2.14 Medixine ..... 106
  - 4.2.15 Medvivo ..... 108
  - 4.2.16 S3 Connected Health ..... 109
  - 4.2.17 SHL Telemedicine ..... 110
  - 4.2.18 OpenTeleHealth ..... 112
  - 4.2.19 MedM..... 114
  - 4.2.20 Qualcomm Life ..... 116
  - 4.2.21 Telbios ..... 118

4.2.22	Telefónica .....	119
4.2.23	Telia Company .....	121
4.2.24	Vitaphone .....	122
4.2.25	Voluntis .....	123
5	Market forecasts and conclusions .....	127
5.1	Market trends and analysis .....	127
5.1.1	PSTN network digitalization drives transition to IP-based telecare systems ....	128
5.1.2	Millions of new cellular connections will be needed for connected care .....	129
5.1.3	Next-generation activity monitoring solutions enable new use cases .....	130
5.1.4	Technological developments will affect the competitive landscape .....	131
5.1.5	Convergence between telecare and telehealth .....	131
5.1.6	BYOD will become a viable option for telehealth .....	132
5.1.7	The medication compliance monitoring market gains momentum in Europe .	134
5.1.8	The interest in mobile telecare solutions is growing .....	135
5.1.9	Respiratory care with sleep therapy monitoring .....	135
5.1.10	The rise of the netdoctor business .....	138
5.1.11	Legal aspects on the data driven future .....	139
5.2	Market forecasts .....	140
5.2.1	Traditional telecare .....	141
5.2.2	Next-generation telecare .....	142
5.2.3	Telehealth .....	144
5.3	Revenue forecasts .....	145
5.3.1	Traditional telecare .....	146
5.3.2	Next-generation telecare .....	146
5.3.3	Telehealth .....	147
	Glossary .....	149

## Index

## List of Figures

Figure 1.1: Population by age group (EU28+2 2015–2030) .....	4
Figure 1.2: Number of people suffering from various chronic diseases (EU28+2 2012) .....	6
Figure 1.3: Percentage of population diagnosed with chronic welfare diseases (2015) .....	7
Figure 1.4: Number of people suffering from various medical conditions (EU 2012) .....	10
Figure 1.5: Total and per capita healthcare spending by country (2013) .....	13
Figure 1.6: Healthcare expenditure per capita by country (EU28+2 2014) .....	15
Figure 1.7: Expenditure on long term care support (UK April 2016–March 2017) .....	17
Figure 1.8: Healthcare expenditure per capita by country (EU28+2 2014) .....	18
Figure 2.1: Analogue and digital telecare systems (EU 28+2 2016) .....	23
Figure 2.2: Adoption of telecare services per country (EU 28+2 2016).....	24
Figure 2.3: Neat NEO telecare device .....	25
Figure 2.4: The telecare value chain.....	26
Figure 2.5: Leading providers of telecare equipment (EU 28+2 2016) .....	27
Figure 2.6: Leading telecare solution providers per country (EU 28+2 2016).....	28
Figure 2.7: Overview of telecare solution providers (EU 28+2 2016) .....	29
Figure 2.8: Number of telecare units shipped by Legrand by country (2016) .....	34
Figure 3.1: Next-generation telecare solutions by segment (EU 28+2 2016) .....	43
Figure 3.2: Adoption of activity monitoring solutions per country (EU 28+2 2016) .....	44
Figure 3.3: Examples of mobile telecare devices .....	45
Figure 3.4: Care@Home activity monitoring solution.....	47
Figure 3.5: Compliance monitoring solution form factors .....	48
Figure 3.6: Overview of the next-generation telecare value chain.....	49
Figure 3.7: Overview of the next-generation telecare landscape .....	50
Figure 3.8: Next-generation telecare solution providers .....	51
Figure 3.9: CareTech’s CareIP telecare system .....	53
Figure 3.10: The Evondos E300 Robot – an Automatic Medicine Dispenser .....	57
Figure 3.11: Medido medication dispensers .....	61
Figure 3.12: Guard2me from LOSTnFOUND.....	66

Figure 3.13: The Easypod injector and the Easypod connect transmitter .....	68
Figure 3.14: Numera Libris and Numera Safety Hub .....	71
Figure 3.15: The Philips Medido medication dispenser .....	74
Figure 3.16: Vivago CARE 8001 watch .....	78
Figure 4.1: Adoption of telehealth services per country (EU 28+2 2016).....	81
Figure 4.2: Connected medical devices and the provision of care .....	82
Figure 4.3: Telehealth hub form factors.....	83
Figure 4.4: Overview of the telehealth value chain .....	85
Figure 4.5: New players enter the telehealth market.....	87
Figure 4.6: Telehealth solution providers .....	89
Figure 4.7: BP eHealth Platform patient dashboard .....	93
Figure 4.8: Apps that can be connected to Google Fit .....	98
Figure 4.9: The Twitoo telehealth hub .....	100
Figure 4.10: Haltian's Snowfox trackerphone.....	101
Figure 4.11: HealthGO+ and HealthGO Mini by eDevice .....	104
Figure 4.12: Medic4All's WristClinic monitoring device.....	105
Figure 4.13: Medixine Suite .....	107
Figure 4.14: MedM mobile applications .....	115
Figure 5.1: Analogue and digital telecare systems (EU 28+2 2016–2022).....	128
Figure 5.2: Cellular connections in the connected care market (EU 28+2 2016–2022).....	130
Figure 5.3: Sleep therapy vendor global market shares (2016) .....	136
Figure 5.4: Connected sleep therapy solutions by vendor (2016) .....	137
Figure 5.5: ResMed's portable AirMini CPAP machine for sleep apnea treatment.....	137
Figure 5.6: Connected care systems (EU 28+2 2016–2022) .....	141
Figure 5.7: Traditional telecare systems (EU 28+2 2016–2022) .....	142
Figure 5.8: Next-generation telecare systems (EU 28+2 2016–2022) .....	143
Figure 5.9: Telehealth systems (EU 28+2 2016–2022) .....	144
Figure 5.10: Connected care market revenues (EU 28+2 2016–2022) .....	145
Figure 5.11: Traditional telecare market revenues (EU 28+2 2016–2022) .....	146
Figure 5.12: Next-generation telecare market revenues (EU 28+2 2016–2022) .....	147
Figure 5.13: Telehealth market revenues (EU 28+2 2016–2022) .....	147