CONTENTS

About the authors xi Acknowledgements xv

Introduction: The Future Home in the 5G Era and Beyond 1

The Future Home: the hub for hyper-connected living 2 Roadmaps and capabilities for success in the new home market 3

Experience-rich home services: still held back by low tech 4 Data security: the factor putting CSPs in pole position 5 Orchestrating data management as a consumer trustee: the Holy Grail 6

Overcoming inertia, tech hurdles and entrenched attitudes 6

O1 A day in the life of a future home 9

A life with the problems taken care of 11
At home alone, and out with friends – simultaneously 12
The ever-present personal assistant and servant 12
The empty home doing its homework 13
At home while on the move to work 14
At work and feeling very much at home 15
Collapsing distance to maintain contact 16

O2 Consumer needs in a hyper-connected world 17

Five megatrends shaping hyper-connected lifestyles 19
One: The hyper-connection and hyper-personalization of daily life 19

Two: Millennials and Gen Z, the principal architects

of the Future Home 21

Three: The rapid ageing of society and the desire to age in place 24

Four: The rise of Do It For Me (DIFM) and the fall of Do

It Yourself (DIY) 26

Five: 'Alone together' in the digitized habitat 27

How people really think and feel about homes – in eight mindsets 28

Mindset 1 - Drone Parents 30

Mindset 2 – Hip-happening Parents 31

Mindset 3 - Savvy Seniors 31

Mindset 4 – Social Grandparent 32

Mindset 5 – Ambience Leader 33

Mindset 6 – Wired-up Urbanite 34

Mindset 7 – Conscientious Controller 34

Mindset 8 - Chaotic Creative 35

Three key themes 35

Identity 36

Spatial revolution 37

Tech Tensions 38

Takeaways 39

O3 From use cases to business cases 41

Life scenario 1: Home life for the Hip-happening Parents 43

Intelligent assistance with childcare 43

Hassle-free plug-and-play technology 43

The home that knows each inhabitant personally 44

The home health check-up 45

Taking home with you wherever you go 45

Fostering family togetherness 46

Life Scenario 2: Advanced healthcare at home 46

Freeing seniors to age at home 47

Adapting an old home for new needs 47

Keeping in touch with a grandparent via technology 48 Constant health monitoring and maintenance 48 Takeaways 49

O4 Turning homes into 5G Future Homes 51

The limited success so far of connected home tech 53

Excessive connected home device prices 57

Impractical set up procedures 58

Fragmentation 59

The weaknesses of Wi-Fi 60

How 5G can turn the connected home into the Future

Home 63

New spectrum bands create high 5G speeds 64

5G is more responsive and reliable 66

5G can connect 10 times more devices than 4G 67

5G's congenial enablers 68

eSIM solves the size problem 69

Edge computing removes network mileage 69

Advanced data analytics for cleverer devices 70

First steps: mastering four challenges 71

Challenge 1: Getting ecosystems right to lower the cost of

Future Home devices 71

Challenge 2: Leveraging 5G to solve setup issues 71

Challenge 3: Using 5G to solve the fragmented connectivity

issues of today's homes 72

Challenge 4: Uniting information pools and granting access

for the greater good 72

Takeaways 73

O5 Privacy and security – two separate challenges of the 5G Future Home 75

The paradox of the Future Home: protecting data that must also be shared 78

Data sharing in today's connected homes 79

Three touchpoints for CSPs to deal with data safety successfully 82

Cross-industry security certification for connected devices 84
Continuous and perpetual monitoring 86
Sowing customer trust and loyalty among the young 87
CSPs' strong starting point on data safety 88

Takeaways 89

O6 The rise of the connected living ecosystem builder 91

Who should be the guiding hand? Three reasons why communications service providers (CSPs) are in pole position 95

Old trust yields new trust 95

Customer care experience 96

Mission-critical infrastructure 97

Breaking up the CSP value chain to unlock the Future Home – six areas and six imperatives 98

One: Reinvent the front office digitally 99

Two: Reinvent the back office 100

Three: Train and equip your talent for the future CSP 102

Four: Kick-start rapid-fire product development 103

Five: Revamp your technology platforms 104

Six: Activate a pervasive connectivity layer 105

Takeaways 107

O7 Emerging business models for the future home 109

The limited return for CSPs of conventional home services 111 Voice-controlled platform devices: leading the way to the

Future Home 112

How multi-sided platforms will disrupt vertical integration 113

Seeking service relevance for the end user within ecosystems 114

Conquering new control points as a data gatekeeper 116
Justifying data control through excellent user experience 117
The platform need for partnerships and alliances 118
Why mere connected home apps are not enough 120
The protracted game of aligning platform partner incentives 121
How basic services can attract new ecosystem partners 121

How basic services can attract new ecosystem partners 121 Takeaways 122

O8 Creating incentives for the Future Home ecosystem 123

The Future Home as pre-emptive multi-tasker 125 Five properties for a really effective Future Home 127 How data silos kill viable ecosystems and good user experience 128

Breaking down data silos for the home – a brief history 130
The potential of universal translation platforms 131
The universal blueprint for Future Home platforms 132
Why the platform core should be open to everybody 134
Build it and they will come 135
How CSPs can lead the way to the Future Home 136
Takeaways 137

O9 The road to the Future Home 139

Life closely intertwined with technology 141
The socio-demographic megatrends shaping hyper-connected lifestyles 142

The great variety of specific use cases 143
Fragmentation – the barrier to development of the Future
Home 143

5G: the connectivity game changer 144
The need to build consumer trust via the strongest possible security, privacy and ethics 144
Future Home orchestrators and gatekeepers – CSPs reloaded 145

The wise pivot 146
Attracting partners to attract consumers 147
Breaking down data silos to benefit both users and ecosystem players 147
CSPs at the crossroads 148

Takeaways at a glance 149 Glossary of terms 153 Endnotes 161 Index 169