Systems maps
MENTAL CAPITAL AND WELLBEING PROJECT
This report has been produced as part of the UK Government's Foresight Project, Mental Capital and Wellbeing. The views expressed do not represent the policy of any Government or organisation.
Mental Capital and Wellbeing: 
Making the most of ourselves 
in the 21st century

Systems maps

This report is intended for:
Policy makers and a wide range of professionals and researchers whose interests relate to mental capital and wellbeing.

This report should be cited as:
The Government Office for Science would like to thank the firm shiftN which led the systems work within the Foresight Project on Mental Capital and Wellbeing, and also the many experts and stakeholders from the UK and around the world who contributed to this work.

The Foresight Programme is run by the UK Government Office for Science under the direction of the Chief Scientific Adviser to HM Government. Foresight strengthens strategic policy-making in government by embedding a futures approach.
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1 Introduction

This report provides a catalogue of important systems diagrams that have been produced within the Foresight Project on Mental Capital and Wellbeing. Some of these diagrams also appear in particular Project reports.

This report is not intended as a stand alone document. Rather, it should be read in conjunction with the final Project report, which describes the Project and its key findings, and the following reports which synthesise the science and evidence base:

- Mental capital through life: Future challenges;
- Learning through life: Future challenges;
- Mental health: Future challenges;
- Wellbeing and work: Future challenges; and
- Learning difficulties: Future challenges

The interested reader can also obtain detailed information on these diagrams in a report that has been produced by the firm shiftN, which undertook the systems work for the Project. In particular, that report details how the various diagrams were built up from their component parts, and provides other explanatory information. That contractual report can be obtained via www.foresight.gov.uk.

The production of the diagrams and their use within the Project

The systems diagrams mostly detail the many factors that affect aspects of mental capital and wellbeing. They were used within the Project to gain a clearer understanding of the complex interactions and interrelationships of these factors.

Their production involved extensive consultation with leading experts. However, the systems that they seek to capture visually are extremely complex, and therefore the detail which the diagrams contain is inevitably controversial: for example, some readers may argue for the inclusion of other factors, or for different linkages. Nevertheless, whilst the diagrams do not purport to be definitive, it is hoped that others will find them useful.

1 “Mental capital” refers to the totality of an individual’s cognitive and emotional resources, including their cognitive capability, flexibility and efficiency of learning, emotional intelligence (e.g., empathy and social cognition), and resilience in the face of stress. The extent of an individual’s resources reflects his/her basic endowment (genes and early biological programming), and their experiences and education, which take place throughout the life course.

2 “Wellbeing” throughout this report refers to “mental wellbeing”. Mental wellbeing is a dynamic state in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community. It is enhanced when an individual is able to fulfil their personal and social goals and achieve a sense of purpose in society.

3 See Appendix A for a list of the Project reports.

2 Catalogue of diagrams

The following table lists the systems diagrams that are reproduced here, together with a brief description.

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Disposition to learn – influence diagram
Stigma associated with mental ill-health – actors

Physical place where discrimination happens

Map of the “Other” people with potential for discriminatory behaviour

Individual
- Legislative
- Courts – Criminal justice system
- Prisons
- Law enforcement

Local
- Lawyers
- Police
- Prison staff

National
- Government officials
- Ministers and legislators
- House of Commons

Media
- Editors
- Producers
- Journalists
- Speaker’s bureau
- Celebrities
- Media companies

Physical healthcare
- GPs
- Nurses
- Psychiatrists

Mental healthcare
- Psychologists
- Therapists
- Counsellors
- Mental health providers

Social Care
- Counsellors
- Social workers
- Occupational support
- Local mental health support and advocacy groups

Financial
- Professional programs
- Insurance companies

Work
- Customers / Public
- Co-workers
- Managers

Education
- Teachers
- Primary education
- Further school
- Vocational training
- Professional programs

Housing
- Landlords
- Housing quality
- Access to open spaces
- Access to transport
- Access to community resources
- Local housing authorities
- Housing Authorities

Arts, Culture, Sports, Recreation
- Community volunteers
- Social Networks

Community
- Community groups

Personal
- Friends
- Family Burden
- Social Supports
- Spouse - Children
- Extended family

System: Department of Health

Department for Work and Pensions

Department for Education

Department for Children, Schools and Families
Wellbeing at work – conceptual overview

**Economic environment**
- Worldwide production and financial markets
- Global flow of information
- Streamlining across cultures

**Personal level**
- Work–life balance
- Active leisure
- Work–family conflict
- Social support

**Globalisation**
- Demographic shifts
- Immigration
- Knowledge work

**Workplace environment**
- Managerial style
- Workload and workplace
- Participation and control
- Skill utilisation and variety

**Regulatory environment**
- Age Discrimination Act
- Regulations and directives
- Deregulation of the labour market

**Governance**
- Effective delegation
- Empowerment
- Empowerment

**Organisation**
- Hyper-compensation
- Constant change
- Integration of work
- Mergers
- Restructuring
- Offshoring
- Outsourcing

**Work content**
- Constant change
- High demands
- Techno-stress

**Individual**
- Perceived stress
- Coping abilities

**Environmental sustainability**
- Ageing workforce
- Immigration
- Service work

**Impact**
- Job insecurity
- High demands
- Low support
- Individual susceptibility

**Organisational stress outcomes**
- Burnout
- Lower morale
- Helplessness
- Alienation
- Job dissatisfaction
- Work–family conflict
- Absenteeism
- High turnover
- Early retirement

**Person-focused stress management**
- Relaxation techniques
- Progressive muscle relaxation
- Meditation
- Biofeedback

**Cognitive behavioral skills training**
- 1. Identify triggers
   - 2. Analyze stress response
   - 3. Develop strategies

**Economic outcomes**
- Macro-economic costs
- Micro-economic costs
- Medical and employee liability
- Employee assistance programmes
- Health and lifestyle programmes

**Positive Wellbeing:**
- Participation
- Creativity
- Identity
- Wellbeing
- Fulfilment
- Flourishing

**Negative Wellbeing:**
- Nervousness
- Irritability
- Fatigue
- Hostility
- Depression

**Wellbeing consequences**
- Economic outcomes
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Appendix A: Structure of the Project reports and supporting papers

Mental Capital and Wellbeing: Making the most of ourselves in the 21st century

Final Project Report

Future challenges

Mental capital through life: Future challenges

SR-E1: Neuroscience of education
SR-E2: Human reward
SR-E3: Neuroeconomics
SR-E4: Cognitive reserve
SR-E5: The adolescent brain
SR-E6: Behavioural economics
SR-E7: Resilience
SR-E8: Adolescent drug users
SR-E9: Pharmacological cognitive enhancement
SR-E10: Stem cells in neural regeneration and neurogenesis
SR-E11: Early detection of mild cognitive impairment and Alzheimer’s disease: An example using the CANTAB PAL
SR-E12: Anxiety disorders
SR-E13: Neurocognition and social cognition in adult drug users
SR-E14: Normal cognitive ageing
SR-E15: Social cognition in teenagers – inclusion
SR-E16: HPA axis, stress, and sleep and mood disturbance
SR-E17: Nutrition, cognitive wellbeing and socioeconomic status
SR-E18: Nutrition and cognitive health
SR-E20: Effect of chronic stress on cognitive function through life
SR-E21: Depression and its toll on mental capital
SR-E22: Focussing and executive training
SR-E24: Effects of exercise on cognitive function and mental capital
SR-E25: Technology solutions to prevent waste of mental capital
SR-E27: Housing as a determinant of mental capital
SR-E28: Cognitive neural prosthetics
SR-E31: Cellular and molecular logic of neural circuit assembly

Learning through life: Future challenges

SR-A1: Learning at work
SR-A2: Skills
SR-A4: Participation in learning
SR-A5: Evidence-informed principles from the Teaching and Learning Research Programme
SR-A7: Estimating the effects of learning
SR-A9: Self-regulation and executive function
SR-A10: Lifelong learning across the world
SR-A11: Non-cognitive skills
SR-A12: Future technology for learning

Mental health: Future challenges

SR-B1: Genetics and social factors
SR-B2: Mental health of older people
SR-B3: Passive mental health
SR-B4: Mental disorders in the young
SR-B5: Prisoners
SR-B6: The homeless
SR-B7: The costs of mental disorders
SR-B8: Children in local authority care
SR-B9: Serious and enduring mental illness
SR-B10: Personality disorders
SR-B11: Violence
SR-B12: Aging
SR-B13: Migrants
SR-B14: Substance abuse
SR-B15: Depression

Wellbeing and work: Future challenges

SR-C1: Workplace stress
SR-C2: Mental wellbeing at work and productivity
SR-C3: Management style and mental wellbeing at work
SR-C4: Flexible working arrangements and wellbeing
SR-C5: New technology and wellbeing at work
SR-C6: Stress management and wellbeing
SR-C7: Working longer
SR-C8: Leisure: the next 25 years
SR-C9: Training in the workplace
SR-C10: Careers
SR-C11: Violence at work

Learning difficulties: Future challenges

SR-D1: Specific language impairment
SR-D2: Dyslexia
SR-D3: Adult learning disabilities
SR-D4: Dyscalculia
SR-D5: Deafness
SR-D6: Genetics and diagnosis of learning difficulty
SR-D8: Conduct disorder and anti-social behaviour
SR-D9: Social cognition and school exclusion
SR-D10: Autism and autism spectrum disorders
SR-D11: Attention Deficit Hyperactivity Disorder
SR-D12: New technologies and interventions
SR-D13: Trajectories of development and learning difficulties
SR-D14: Early neural markers of learning difficulty
SR-D15: Childhood depression
SR-D16: Eating disorders

Cross-Project papers

SR-X1: Science of wellbeing
SR-X2: Neurobiology of wellbeing
SR-X3: Manual kits and wellbeing
SR-X5: Mental health assembly
DR-1: ICT as a driver of change
DR-2: Physical environment and wellbeing
ER-1: Ethics

Note 1: Some reference numbers were assigned to topics; however, the reports/papers were not subsequently commissioned.

Note 2: The Project commissioned some additional “discussion papers” as referred to in the text of the final report. These will be made available through www.foresight.gov.uk in due course.
All the reports and papers produced by the Foresight Mental Capital and Wellbeing Project may be downloaded from the Foresight website (www.foresight.gov.uk). Requests for hard copies may be made through this website.