The Economics of Health and Social Care Integration

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LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Aims and scope of the talk

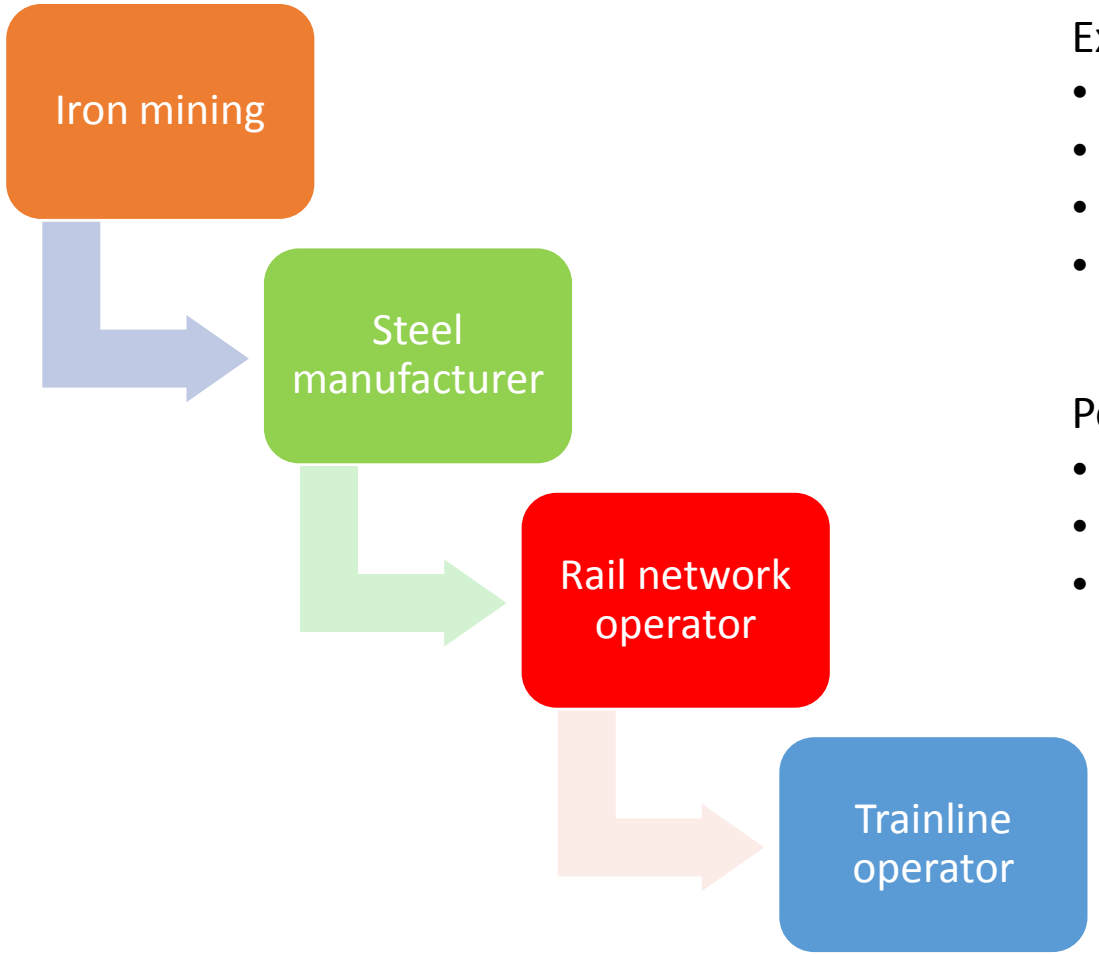
- **Not** to try to provide a model for the successful integration of health and social care services
- Review some key concepts and objectives associated with care integration
- Examine evidence about the interrelationship between health and social care
- Discuss some policy implications for the integration question
- Focus on European (and particularly UK) evidence

Two definitions

- **Horizontal integration**: consolidation of many firms that handle the same stage of the production process.

- **Vertical integration**: a competitive strategy by which a company takes control over one or more stages in the production or distribution of a product.

The case for integration in the wider economy



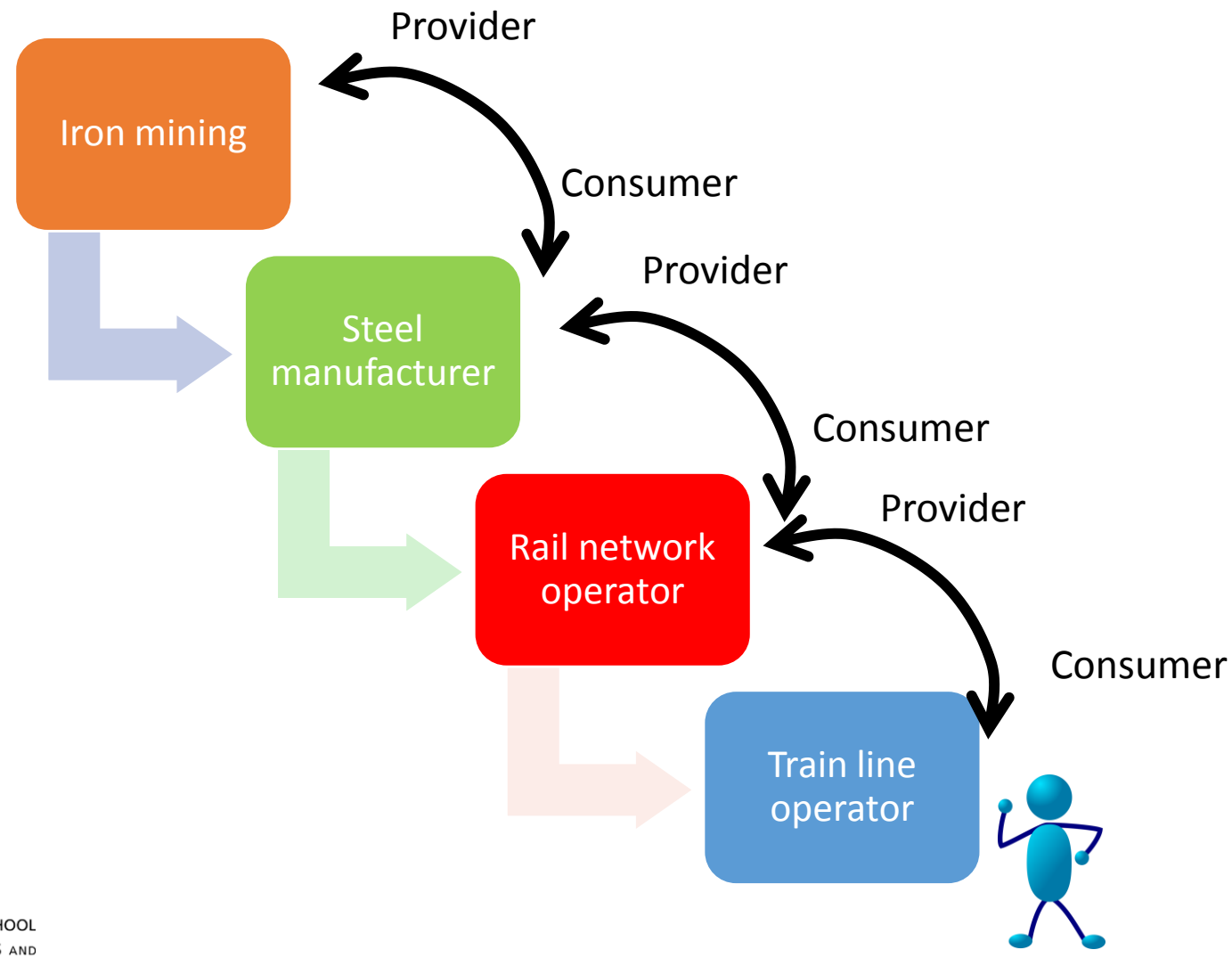
Expected benefits

- Reliability in the supply chain
- Reduction of transaction costs
- Absorption of upstream and/or downstream profits
- Barrier to new entrants

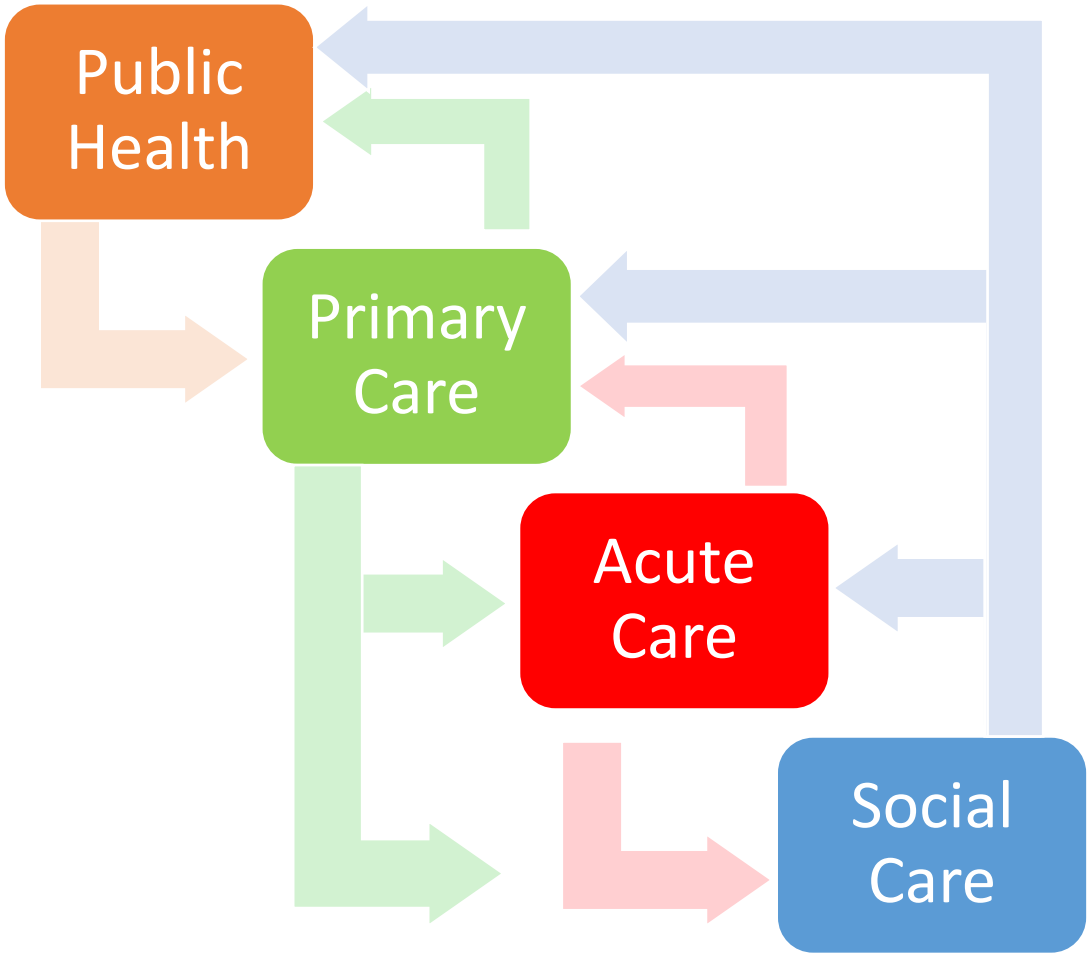
Possible risks

- Negative impact of lower competition
- Challenge to maintain core competencies
- Increased managerial challenges

The case for integration in the wider economy



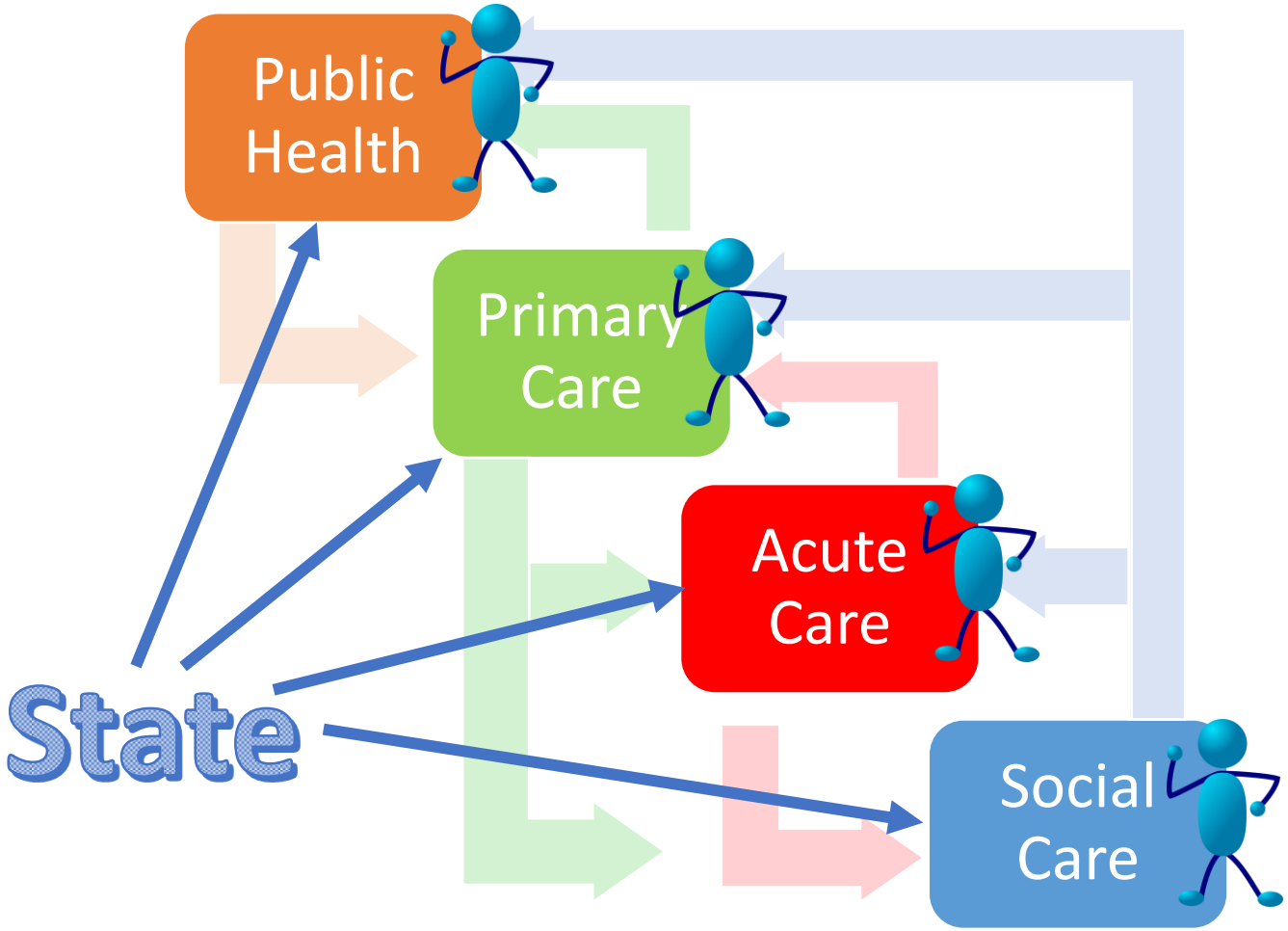
The case for integration in the care economy



Integration can affect:

- Individuals' experience of the flows (by changing how the interface between services takes place)
- Levels of demand for services by identifying latent need for services and by exploiting the substitutability between services

The case for integration in the care economy

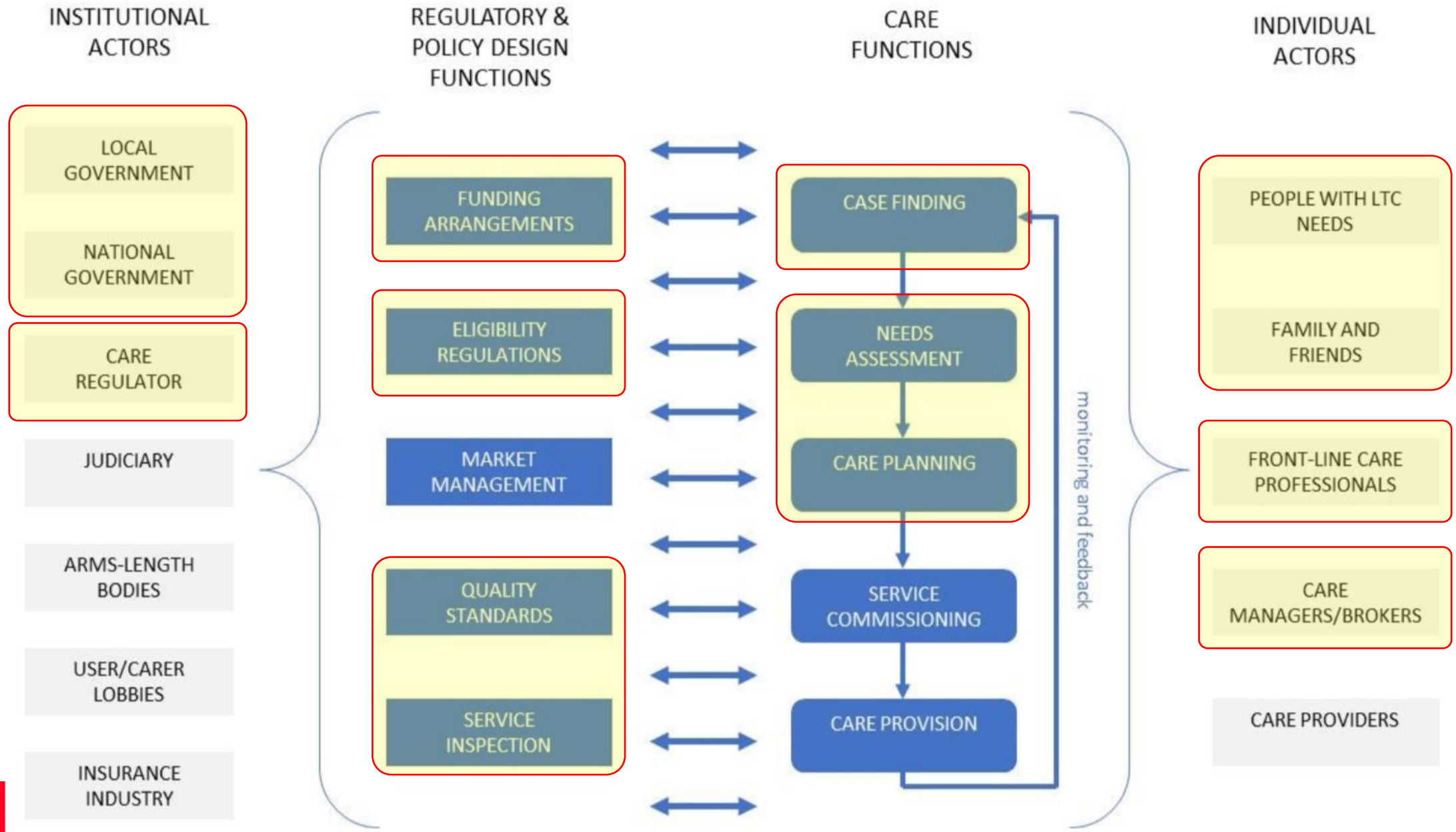


Integration initiatives aim to make the different agencies in the care system recognise and internalise their interdependence

So what are the objectives of integration in the care system?

- Optimise care activity **across** as well as within services
- Intervening at the right time (identifying and using opportunities for prevention)
- Using the “right” services: e.g. appropriate balance between primary and secondary care, between health and social care…
- Improving patients’ experience by smoothing transitions between services (better information flow; felling of control of patients)
- Improving efficiency of the care system. Potential for cost-savings or improvements in throughput?

Figure 1: Key actors and functions in the LTC system



How do we integrate?

- Models of integration (Leutz, 1999):
- ***Linkage* or *networking***: different professionals or providers are aware of each other and the working relationships between them are based on regular exchanges, while maintaining independence.
- ***Coordination***: this involves creating specific structures or positions at the interfaces between providers, services, units or systems, which focus on managing transitions, information and service delivery for specific groups of users.
- ***Integration* or *full integration***: new functional units are created that pool resources (e.g. financial and human resources) from different providers or systems. These new units (virtual or with shared ownership) have full control over resources and information.

Common integration mechanisms

- **Financial integration**: e.g. pooled funds; integrated commissioning where health and social care services are commissioned jointly with an agreed set of aims. (Financial penalties also exist).
- **Joint assessment and care planning** (reduces numbers of assessments and provides joint basis for care coordination)
- **Case management** collaborative process of case finding, assessment, planning, facilitation, and care coordination. Predictive models and clinical judgement often used to identify people at high risk. Coordination of service delivery by multidisciplinary teams.
- **Information and data sharing** are important organisational or system 'enablers' of integration (Goddard & Mason, 2017). Legal, cultural and technical issues limit its success.
- **Structural integration**: Health and social care responsibilities combined within a health or social care body under single management.

So what works?

EUROPEAN NETWORK ON LONG TERM CARE QUALTY AND COST EFFECTIVENESS AND DEPENDENCY PREVENTION

CEQUA

LTC network

Welcome and review of activities

Borja Arrue, Francesco Barbabella, Gudrun Bauer, Mario Braga -AgenasGianluca Busilacchi, Juan Carlos Chiatti, Georgia Casanova, Francesca Centola, Jon Cylus, Dorly Deeg, Jose-Luis Fernandez, Celia Fernandez, Lorraine Frisina-Doetter, Ilenia Gheno, Stella Golinowska, Rosa Gomez, Emily Grundy, Montserrat Guillen Estany, Stefania Ilinca, Iiris Jaakkola, Lennarth Johansson, Marja Jylha, Giovanni Lamura, Blanche Le Bihan, Kai Leichsenring, Ismo Linnosmaa, Maude Luherne, Matti Lyytikainen, Joanna Marczak, Claude Martin, Elen Nolte, Herwing Ostermann, Massimiliano Panella, Roberta Papa, Anne-Sophie Parent, Thomas Rapp, Jean-Marie Robine, Ricardo Rodrigues, Heinz Rothgang, Lauri Saaksvuori, Miguel Santolino, Par Schon, Alis Sopadzhiyan, Agnieszka Sowa, Modesta Visca, Aneta Widak, Raphael Wittenberg, Stecy Yghemonos.

European Commission

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Review of evidence on costs and outcomes of integration

- Search strategy: rapid review of narrative, umbrella reviews of systematic reviews, systematic reviews and meta-analyses
- Identified through the Cochrane Library of Systematic Reviews, Google Scholar, Google and PubMed
- Searches were not restricted by age, publication date or country
- The 14 reviews identified include interventions delivered across social and health care settings
- Evidence in English, but completed by evidence from selected European countries in their respective national languages based on both systematic reviews and individual small scale case studies not included in international evidence

Evidence on quality of life

- Positive outcomes in 10 out of 11 studies on palliative care (better symptom control and better quality of life (QoL), better communication between personnel, users and caregiver (Siouta et al., 2016)
- Other reviews reported improved QoL, wellbeing, user satisfaction and adherence to treatment; some studies showed reduced mortality and improved quality of care and users' experiences, although some results were mixed (Cameron et al., 2014, Martinez-Gonzalez et al., 2014, Nolte & Pitchforth, 2014, Mason et al., 2015, Damery et al., 2016)
- Evidence from randomized controlled studies on Care Management for people with Alzheimer's disease showed mixed results
- Large pooled health and social care budgets more likely to improve outcomes relative to small integrated budgets (Mason et al., 2015)
- Care Management should be associated to a larger organizational, financial or institutional integration program (Somme et al., 2009)

Evidence on acute care performance effects

- **Avoiding (re) admission to acute or residential care**: limited and mixed results, depending on the type of intervention and population studied (see Goddard & Mason, 2017).
- **Avoiding A&E use**: Nolte & Pitchforth (2014) found the assessment of the size of possible effects problematic and evidence lacking robustness.
- **Hospital length-of-stay (LoS)**: Some evidence that coordinated/joint interventions reduce LoS, but reported effects tend to be moderate.
- **Cost-effectiveness**: evidence very limited, of poor quality and mixed results, and it is difficult to make comparisons across reviews and individual studies (Cameron et al., 2014, Nolte & Pitchforth, 2014).

Judging the evidence…

- Many single studies suggest cost-savings and improved outcomes
- But reviews across studies suggests a much more mixed picture
- This reflects:
  - Differences in the design of integration schemes (even within broad family)
  - Differences in the target group
  - Differences in their context for implementation
  - Differences in the evaluation methodologies
- At present it is difficult to find clear messages. Individual studies ought to be examined to assess their relevance and applicability to different contexts.

Substitution between health and social care services. Does is exist?

HEALTH ECONOMICS
Health Econ. **18**: 1322–1338 (2009)
Published online 10 February 2009 in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/hec.1438

LONG-TERM CARE AND HOSPITAL UTILISATION BY OLDER PEOPLE: AN ANALYSIS OF SUBSTITUTION RATES

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Aims and methods

- Analysis of interdependence between hospital and care home services in England
- Focus on older people (over 75)
- Cross-sectional data from 2004/5 Health Episode Statistics (HES).
- Small area analysis: care home and hospital utilisation aggregated to electoral wards
- Instrumental variables used to control for endogeneity
- Range of models tested: GEE, GMM, TPM, Tobit

Table IV. Marginal effects – care home utilisation on hospital use

		Significance		£'s saving for £1 spent on social care		
Model	Marginal effect	Z	*p*	Point	−CI	+CI
GMM linear – all conditions	−5354.87	−7.86	<0.0001	−0.33	−0.41	−0.25
GEE log – all conditions	−5440.05	−6.90	<0.0001	−0.33	−0.43	−0.24

Table V. Marginal effects – hospital utilisation on social care use

			Significance		£'s saving for £1 spent on hospital care		
Model	Variant	Marginal effect	Z	*p*	Point	−CI	+CI
Linear	I	−2.44E−05	−3.83	<0.0001	−0.40	−0.60	−0.19
	II	−2.24E−05	−1.97	0.049	−0.37	−0.73	−0.001
Two part	I	−3.25E−05	−3.93	<0.0001	−0.53	−0.80	−0.27
	II	−2.50E−05	−1.98	0.048	−0.41	−0.81	−0.004
Tobit	I	−3.00E−05	−4.66	<0.0001	−0.49	−0.74	−0.25
	II	−2.19E−05	−2.37	0.018	−0.36	−0.66	−0.06