Intellectual Capital for Communities
In the Knowledge Economy

Intellectual Capital for Communities in the Knowledge Economy Nations, Regions, Cities and Emerging Communities

UNIVERSITÉ PARIS-SUD 11

European Chair on Intellectual Capital Management

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Intellectual Capital for Communities
In the Knowledge Economy

New Sources of Growth : Intangible Assets

A 2-year OECD project

Alistair Nolan

UNIVERSITÉ PARIS-SUD 11

European Chair on Intellectual Capital Management

Presentation Overview

- Project context : why analyse intangible assets ?

- Issues the NSG project will address.

What are intangible assets ?

- What are intangible assets ?
  - Claims on future benefits that do not have a physical or financial embodiment (Lev, 2001).
- Recent analyses focus on 3 types of intangible asset:
  - Computerised information (software, data);
  - Innovative property (patents, copyrights, trademarks, designs, etc).
  - Economic competencies (brand equity, firm-specific human capital, business networks, organisational know-how that increases enterprise efficiency, etc).

Project context : why analyse intangibles?

A relatively recent body of research, beginning with Nakamura (2001), and spurred in particular by Corrado, Hulten and Sichel (2005) has:

- Sought to quantify business spending on intangibles, and to place these expenditures in a growth accounting framework - treating them as *investments* rather than spending on intermediates.

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By accounting convention, if an acquired good contributes to production longer than the taxable year, the cost of the good is capitalised.

Corporate and national income accounting have historically treated intangible inputs as an intermediate and not as capital.

Project context : why analyse intangibles?

Recent analyses focus on 3 types of intangible asset

Asset type	Current status in national accounts
Computerised information (software; databases)	Software is capitalised
Innovative property (patents, copyrights, trademarks, designs, etc)	R&D - on the way to being capitalised; Mineral exploration; Entertainment, literary or artistic originals.
Economic competencies (brand equity, firm-specific human capital, business networks, organisational know-how that increases enterprise efficiency, etc)	No items recognised as assets.

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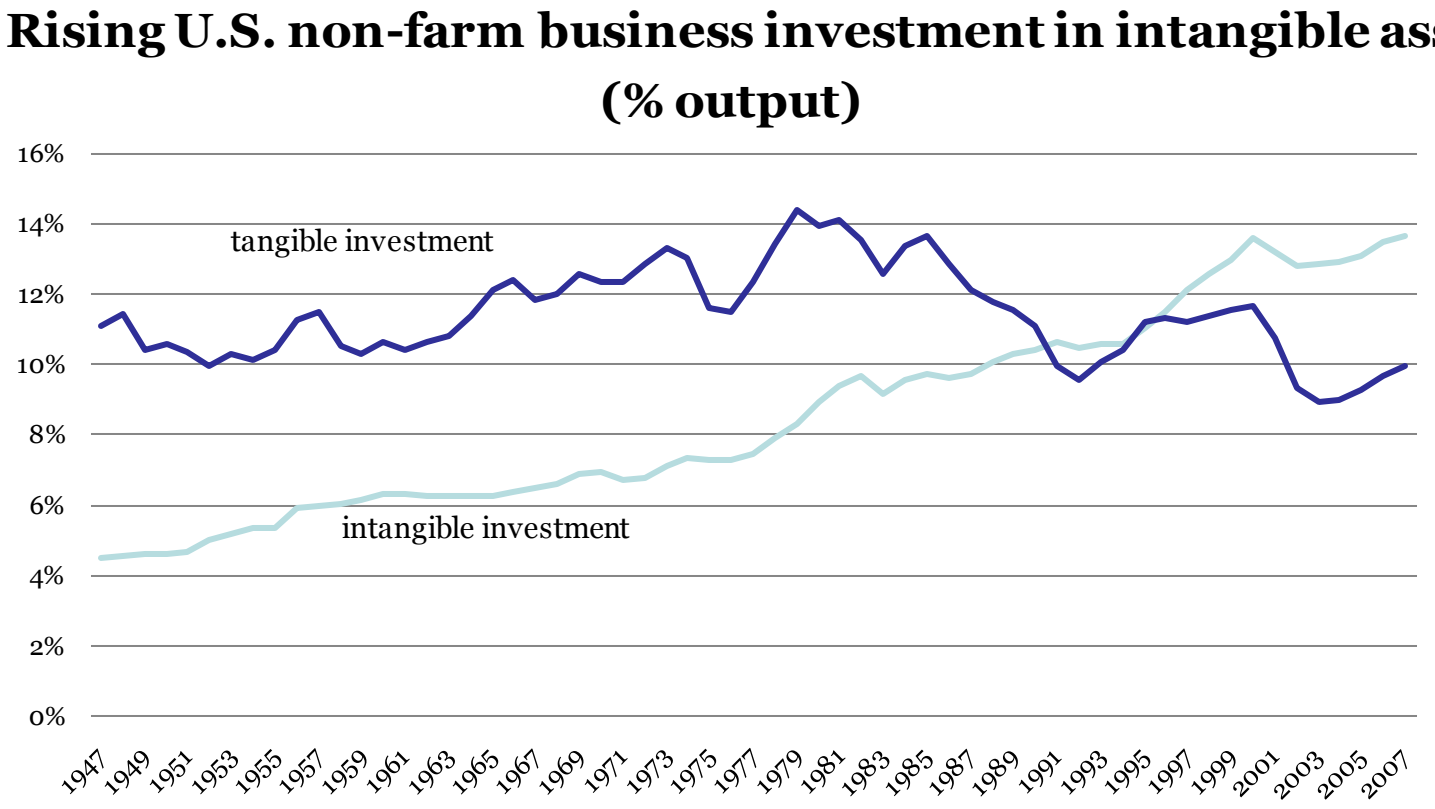
Some stylised findings of the research

Many advanced economies have become progressively intensive in investment in intangible assets



Source: Corrado and Hulten (2010)

Why this increased business investment in intangibles ?

Rising educational attainment in OECD economies.

Many products becoming more knowledge intensive.

With globalisation and deregulation, competitive advantage increasingly driven by innovation….in turn driven by investments in intangibles.

Fragmentation of value chains – and increasing sophistication of production in many industries – increase the importance of intangibles, particularly organisational capital.

New ICTs may itself increase the value of some intangibles to firms.

Growth of the services sector, as many service sector firms rely highly on the use of intangibles.

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Fragm… …duction in many … …articularly organi…

New I…

Growt… …on the use of intan…

Automotive manufacturers view leadership in control software as vital

Chevrolet Volt has 10,000,000 lines of code.

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Fragmentation of value chains – and increasing sophistication [illegible]duction in many industries – increase the im[illegible]arly organisational capital.

New ICTs may itself increase the value [illegible]

Growth of the services sector, as many s[illegible] use of intangibles.

E.g. patentable technology is only about 25% of the value of the iPhone (Korkeamaki and Takalo (2010)

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Growth of the services sector ne use of intangibles.

E.g. Wal-Mart's computerised supply chains; Merck's multiple R&D alliances; 100s of subcontractors in aerospace.

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Growth of the services [illegible]se of intangibles.

99% of the time, at least one Internet bookseller offers a lower price than Amazon ! But Amazon retains a large market share due to reputation for customer service.
(Brynjolfsson and Smith, 2000).

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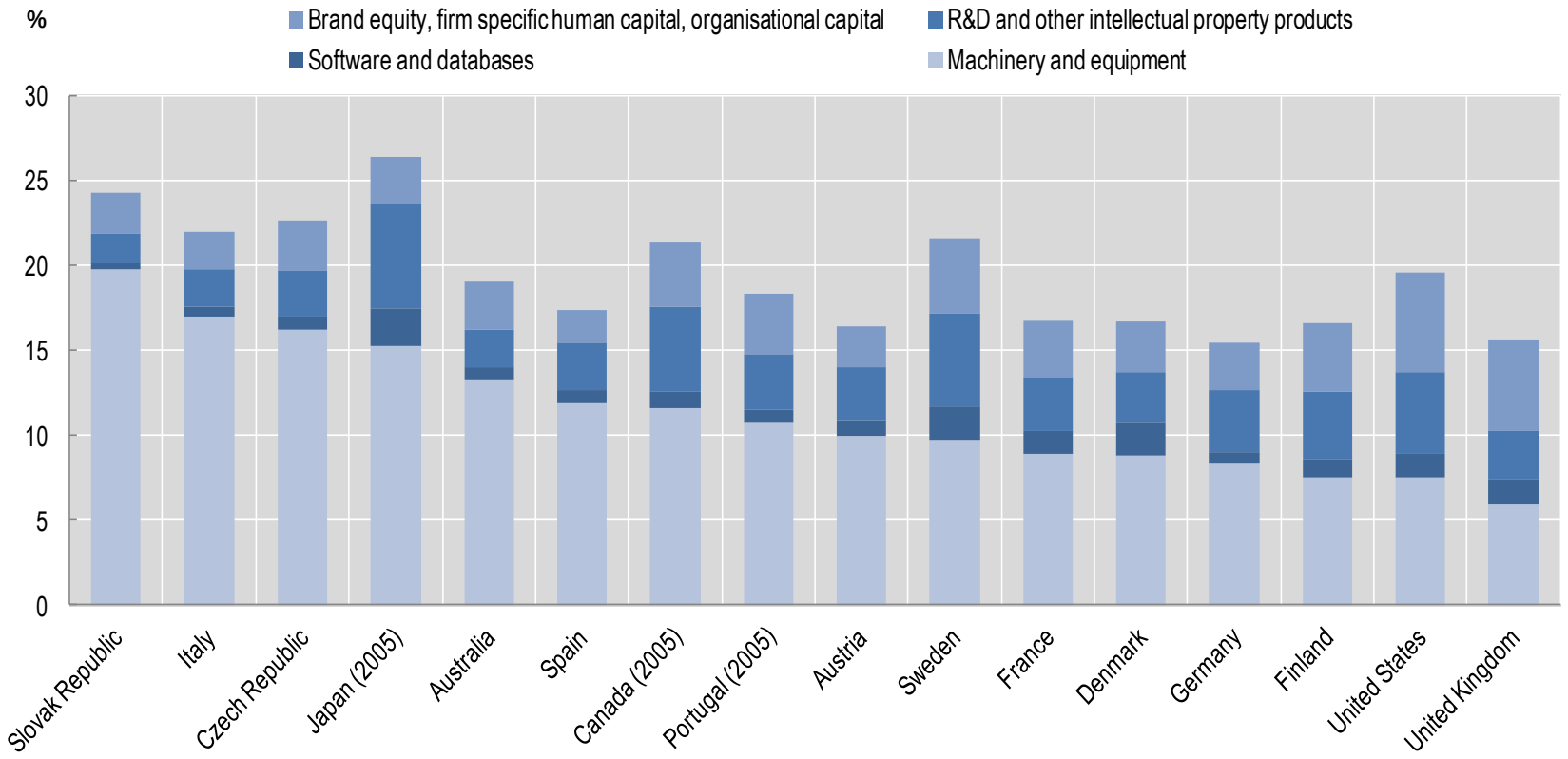
Growth of the services sector, as many service sector firms rely highly on the use of intangibles.

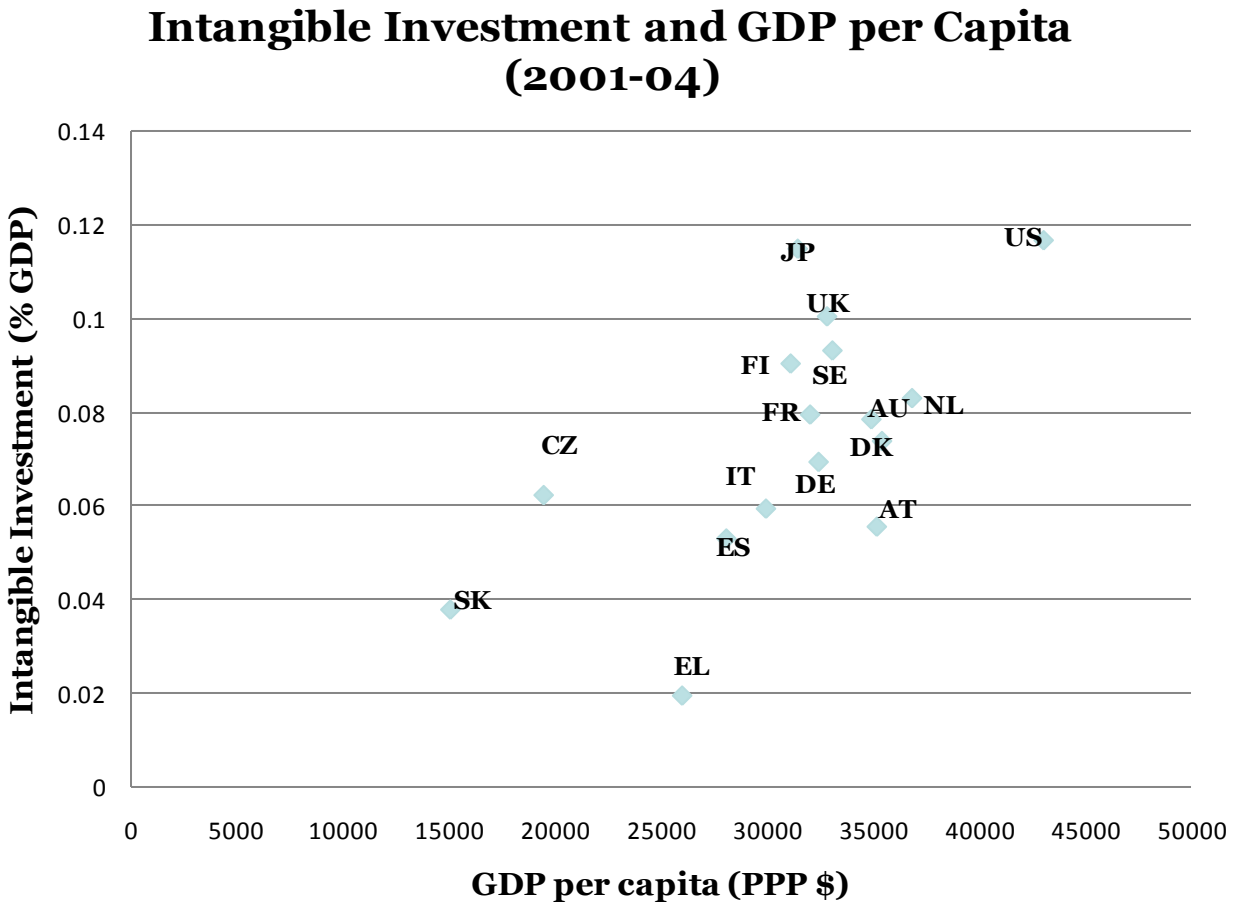
In some countries business investment in intangibles exceeds that in machinery, equipment and buildings

Investment in tangible and intangible assets as a share of GDP (2006)



Source: National estimates – see OECD *Innovation Strategy* (2010).

Big differences across countries in share of investment in intangibles - positively correlated with income per capita



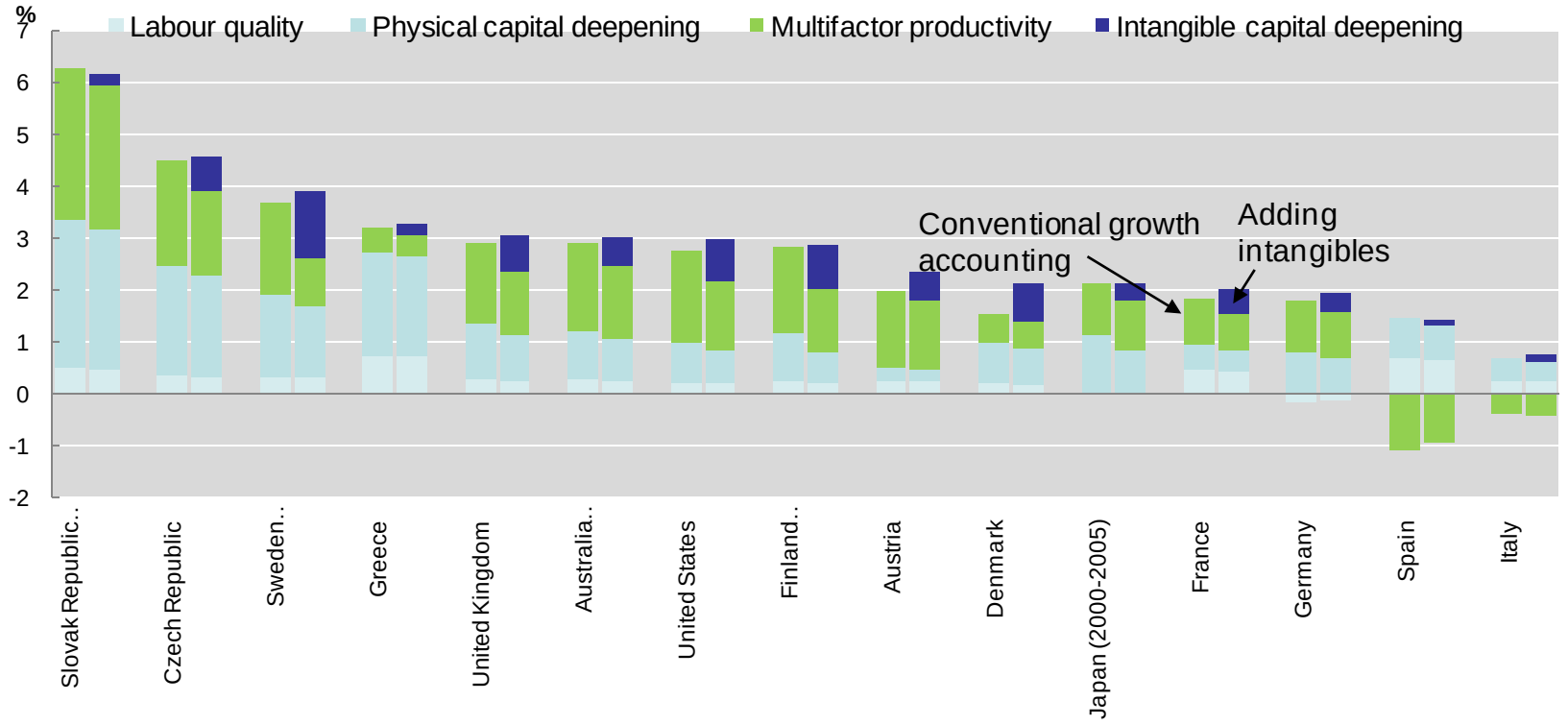
Source: Van Ark *et al* (2009)

Included in national accounts, intangibles can significantly change the observed scale and sources of growth

- Corrado and Hulten (2010) – by omitting intangibles, in 2007 USD 4.1 trillion excluded from published national accounts data.
- BEA (2010) estimates GDP in the United States would have been, on average, 2.7 per cent higher between 1998 and 2007 if R&D was treated as investment in NIPA.
- Labour productivity growth increases – through capital deepening - and a lower contribution to growth from increases in multi-factor productivity.

Intangibles can change observed sources of growth

Labour productivity growth : adding intangibles (1995-2006)



Source: National estimates : see *Measuring Innovation: A New Perspective* (2010).

2. Issues the NSG Project will address

- Measurement
- Taxation
- Data
- Corporate Reporting
- Competition
- Knowledge networks and markets
- Global value chains

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STI (NESTI and WPIA) and STD

-Critically review the methods for measuring flows and stocks of intangibles.

-Work to develop measurement guidelines for selected intangibles at firm level.

-Review and produce new evidence on the contribution of intangibles to firm, sectoral and aggregate performance.

-Analyse value creation from intangibles. e.g. relationship between investment in intangibles and knowledge output (IP)

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CTPA

-Better assess the tax burden on knowledge capital, factoring in the effects of tax policy and MNE tax strategies.

-Drawing on the above, examine challenges for policy in encouraging investment while also taxing returns on mobile intangibles.

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STI/ICCP + EAS

-Personal data is now heavily processed, analysed, shared and transferred across the globe and around the clock.

-Explore measurement of investments in data.

-Explore broader policy implications of the growing value of personal and public data.

E.g. Scope for spillovers ?(some commercial data might be used for scientific purposes); how to value public data ?; the balance between privacy and innovation ?

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DAF/CA

-Review progress in reforms to corporate reporting of intangibles since OECD's most recent work in this area (2008);

-Identify where reforms have lagged and explain factors retarding reform;

-Outline prospects for further reform and how progress might best be realised.

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DAF/COMP

-Scope of work yet to be defined – possibly a Roundtable on on-line Commerce in autumn 2011.

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STI/EAS-CSTP

Which policy settings will best facilitate the circulation (sharing, trading or joint production) and exchange of knowledge among independent parties ?

Shapes the conditions under which companies access and generate the key intangibles of knowledge and innovative property.

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STI/SPD

-iPod, 'made in China', but most of the value accrues to retail/distribution service providers in the US and Apple, based on innovations in design, marketing and supply-chain management.

"Our clothes are Italian, French and German, so the profits are all leaving China…We need to create brands, and fast".

SG, China Industrial Overseas Development and Planning Assoc.

Upcoming events + project outputs

- Washington DC, May 16-17, "Building Blocks for Jobs and Economic Growth."
- Policy-oriented conference in the autumn 2012.

Reports on:

- Measurement of intangibles and their effects on economic growth.
- Improving tax policy for intangible assets.
- Progress in reforming corporate reporting of intangible assets.
- The role of intangible assets in global value chains.
- Developing knowledge networks and markets (KNMs).
- The creation of economic value from new forms of data.
- Synthesis report, with prioritized recommendations for government.

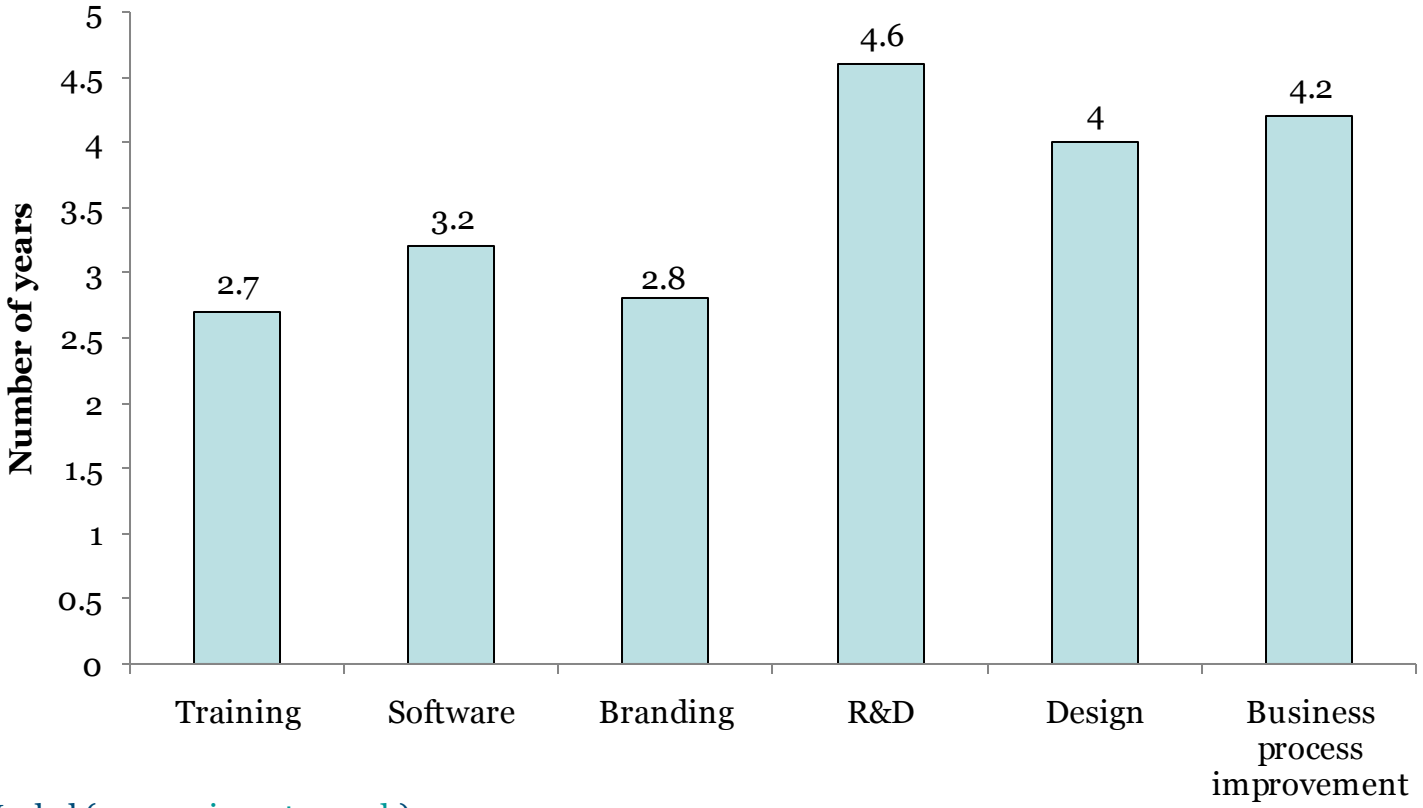
Question ?

Are there other themes that CIIE suggests this project should tackle ?

Further information

Alistair.Nolan@oecd.org

Estimated productive lives (years) of key intangible assets in firms in the UK



Source: Haskel (www.coinvest.org.uk)