

**Horizon 2020 -
*understanding, accessing,
impacting***

Michael Wood, 10 September 2014

NHS European Office

- **Who are we?**
 - Established 2007
 - Part of the NHS Confederation
 - Funded by national NHS bodies
- **What do we do?**
 - Represent NHS organisations in EU policy-making and legislation
 - Assist the NHS with the implementation of EU law
 - Offer strategic advice on EU funding opportunities
 - Promote partnerships between NHS organisations and bodies from other sectors/countries.

EU funding - What we are doing to help

NHS European Office bringing together **key partners** across sectors:

- Technology Strategy Board, including range of National Contact Points in relevant areas
- Medical Research Council
- Universities UK
- Research Councils UK
- Local Enterprise Partnerships
- European Commission

- Publications, webinars, events, intelligence sharing, presentations, facilitating meetings, representing...

EU funding - What we are doing to help



The NHS European Office can assist NHS organisations wishing to apply for EU funds. We can:

- look at a project concept note and help assess whether it would be a potential fit for European funding
- support your organisation in establishing appropriate European partnerships
- help answer technical and administrative questions
- help develop capacity in your organisation to apply for and manage EU funds

What we will cover

- The EU and research
- The UK and FP7 Health
- Looking ahead to Horizon 2020
- Horizon 2020: why should it be any different?
- The long game
- Getting started

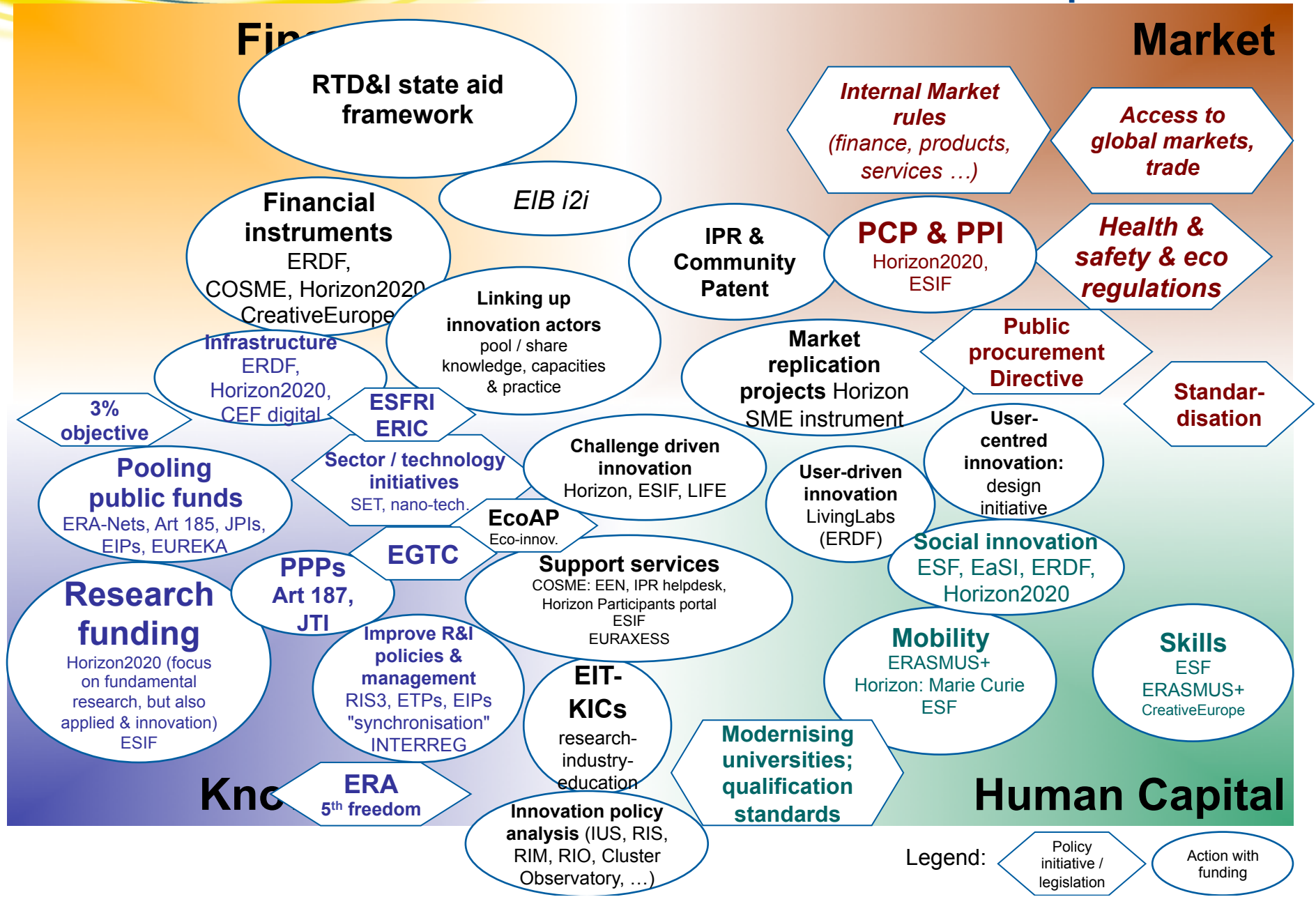


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The EU and research

Why does the EU get involved in Research?

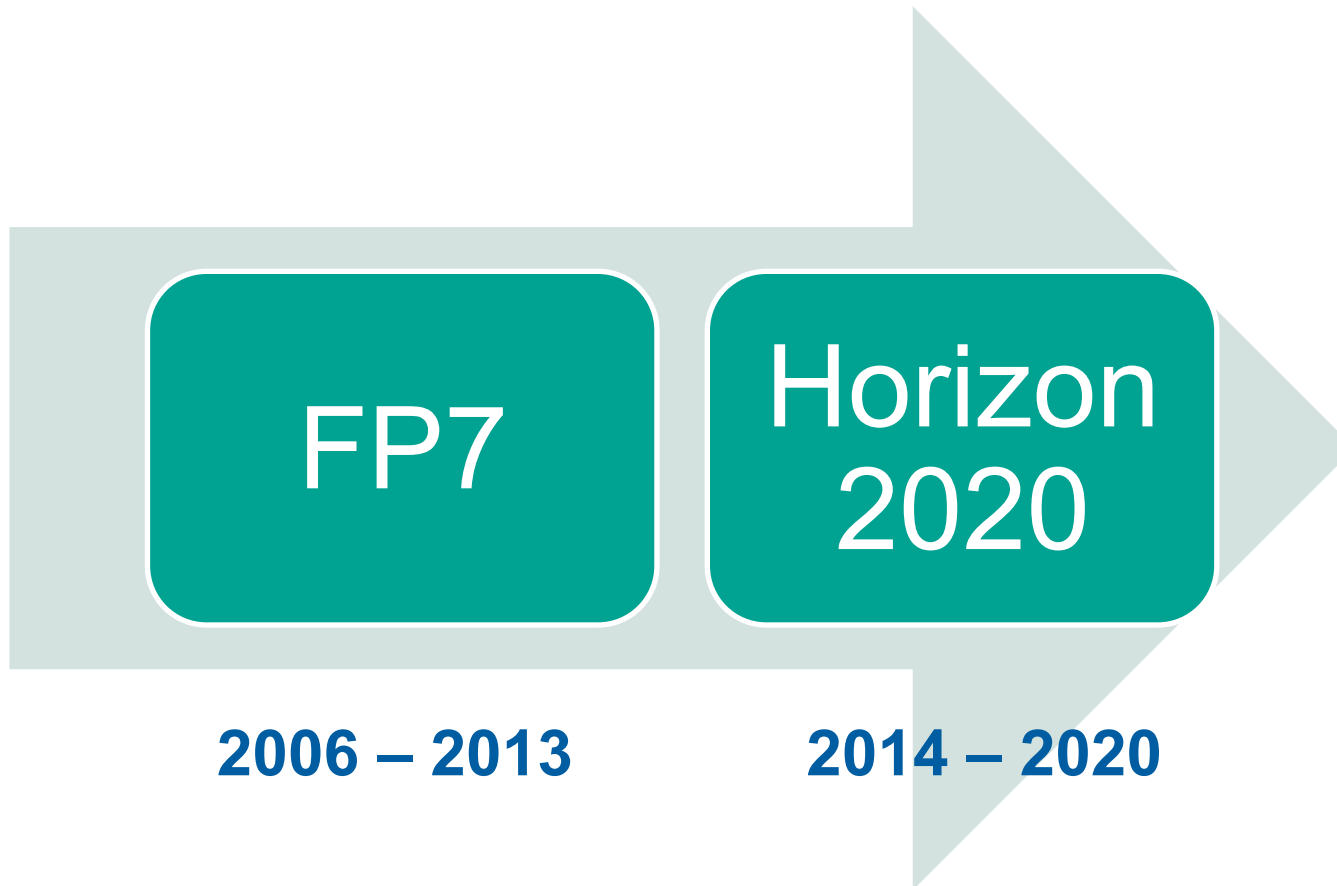
- It's in the Treaty!
- But some things are not in the Treaty – need a complementary mix of legislation and funding
- Member States ask it to get involved
- EU competence in associated areas, for example EU Regulations and Directives on clinical trials, medical devices, data protection
- RTD role in jobs and growth critical for EU internal market
- It's ultimately a global race - EU vs USA vs BRIC
- Commonly agreed area of **EU added value** and a **respected Commission DG** leading on it



Grounding *Europe 2020* – the current strategy



What's in a name?



FP7 Health Theme Funding, 2007 - 2013

Year	Total Funding	Projects Funded	Topics
2007	€641 million	153	87
2008	€577 million	172	87
2009	€593million	108	71
2010	€628 million	131	72
2011	€657 million	124	51
2012	€657 million	140	37
2013	€819 million	143	37



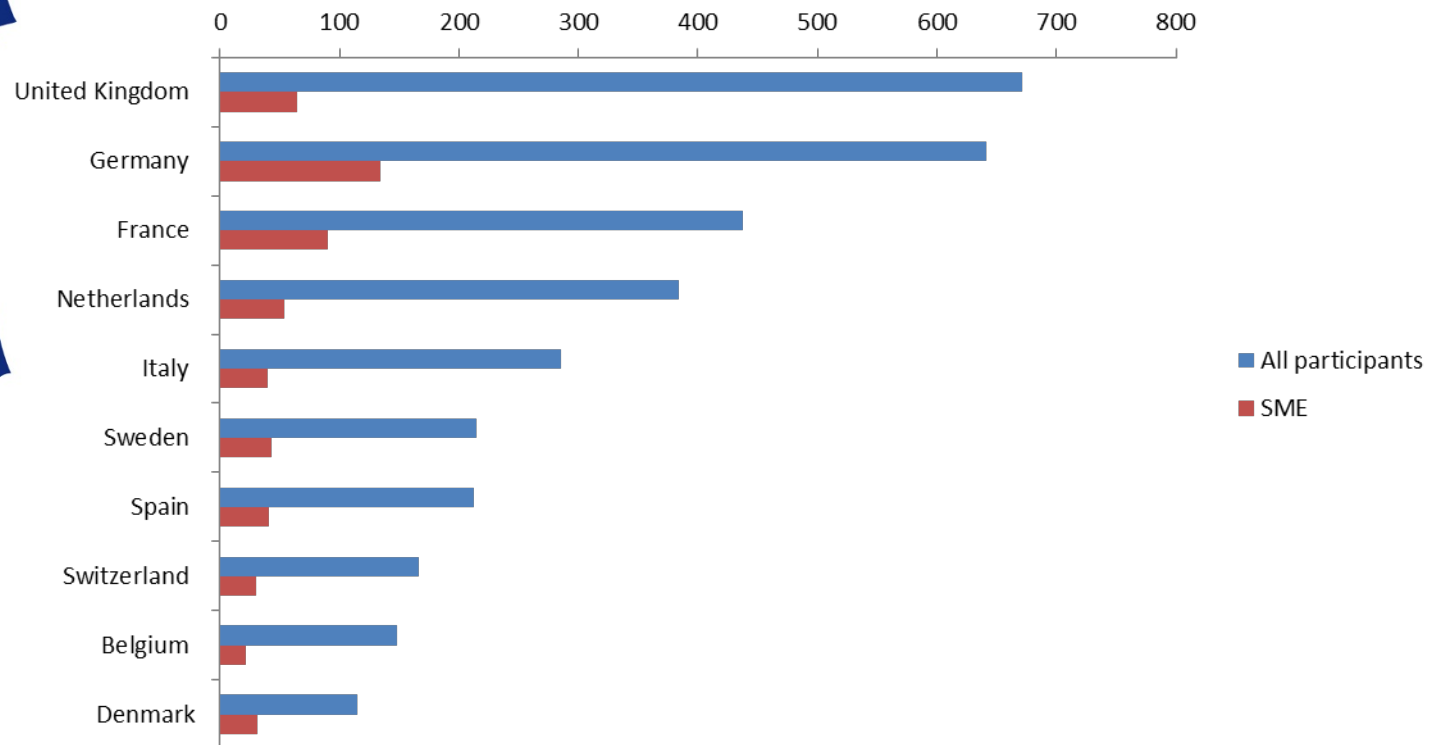
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The UK and FP7 Health

EU health research funding – how are we doing?

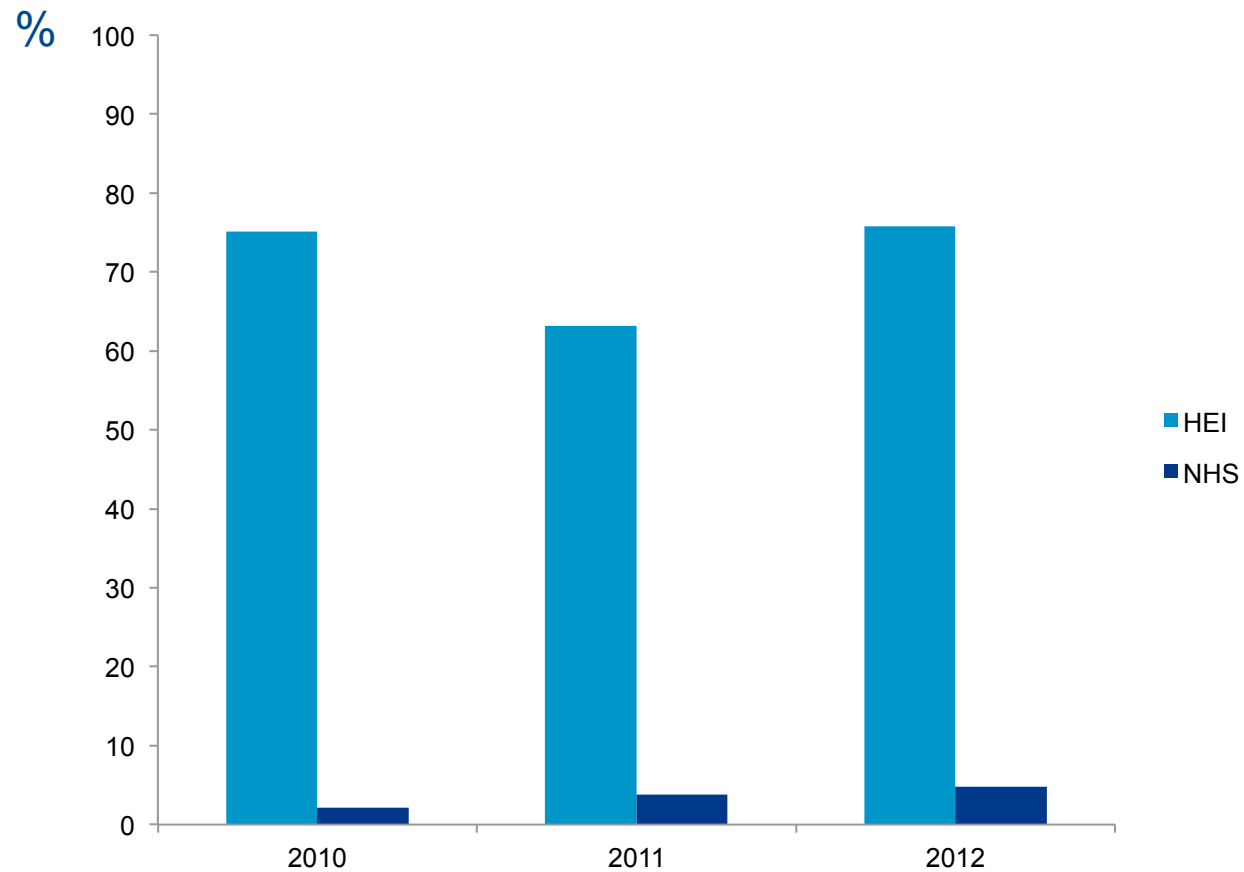


UK organisations have secured > €670 million of EU funding for Health research



FP7 Health – where was the NHS?

Participants landscape (UK) – academia and NHS



FP7 Health – where was the NHS?

Brighton and Sussex
University Hospitals **NHS**
NHS Trust

Moorfields Eye Hospital **NHS**
NHS Foundation Trust

Royal Brompton & Harefield **NHS**
NHS Foundation Trust

Guy's and St Thomas' **NHS**
NHS Foundation Trust

Great Ormond Street
Hospital for Children **NHS**
NHS Foundation Trust

The Christie **NHS**
NHS Foundation Trust

King's College Hospital **NHS**
NHS Foundation Trust

Oxford University Hospitals **NHS**
NHS Trust

The Royal Liverpool and
Broadgreen University Hospitals **NHS**
NHS Trust

University College London Hospitals **NHS**
NHS Foundation Trust

Strong acute/specialist focus **BUT** scope for more...

FP7 Health – where was the NHS?

NHS thematic experience is broad, but reoccurring subjects:

- chronic conditions; such as cancer, heart conditions, diabetes
- clinical trials
- paediatrics
- Ageing, including ICT/eHealth
- mental health (including Dementia, Parkinson's etc)

Strong biomedical focus **BUT** scope for more...

My thoughts on NHS and FP7

- Interest mainly confined to teaching hospitals and specialist providers – esp clinical
- Lack of real knowledge at NHS board level
- Clinical input often led through associated academic institutions
- Episodic interest on specific issues rather than wider focus on what matters for organisational strategy
- Limited appetite for the ‘long haul’
- Even where NHS has been involved do we know about it?

- And yet NHS partners often actively sought across Europe

But benefits of collaboration are well known

Participation in an EU-funded project can:

- complement local health initiatives with match-funding
- improve service delivery through information-sharing and exchange of good practice
- develop pan-European research networks
- benchmark and compare NHS practice with partners from other EU member states
- showcase the organisation's achievements in a specific field or topic to international colleagues
- profile local, regional and national health innovations at international events
- attract world-class researchers to the organisation.



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Looking ahead to Horizon 2020

Horizon 2020: What is it?

The basics:

- 70.2billion Euro research and innovation funding programme (2014 – 2020)
- Strengthens the EU's global position in research, innovation and technology
- New framework programme bringing together a range of separate programmes/initiatives
- More support for innovation activities – focus on business opportunities
- Simplified rules (e.g. reduction of average time to grant by 100 days)

Horizon 2020: What's new?

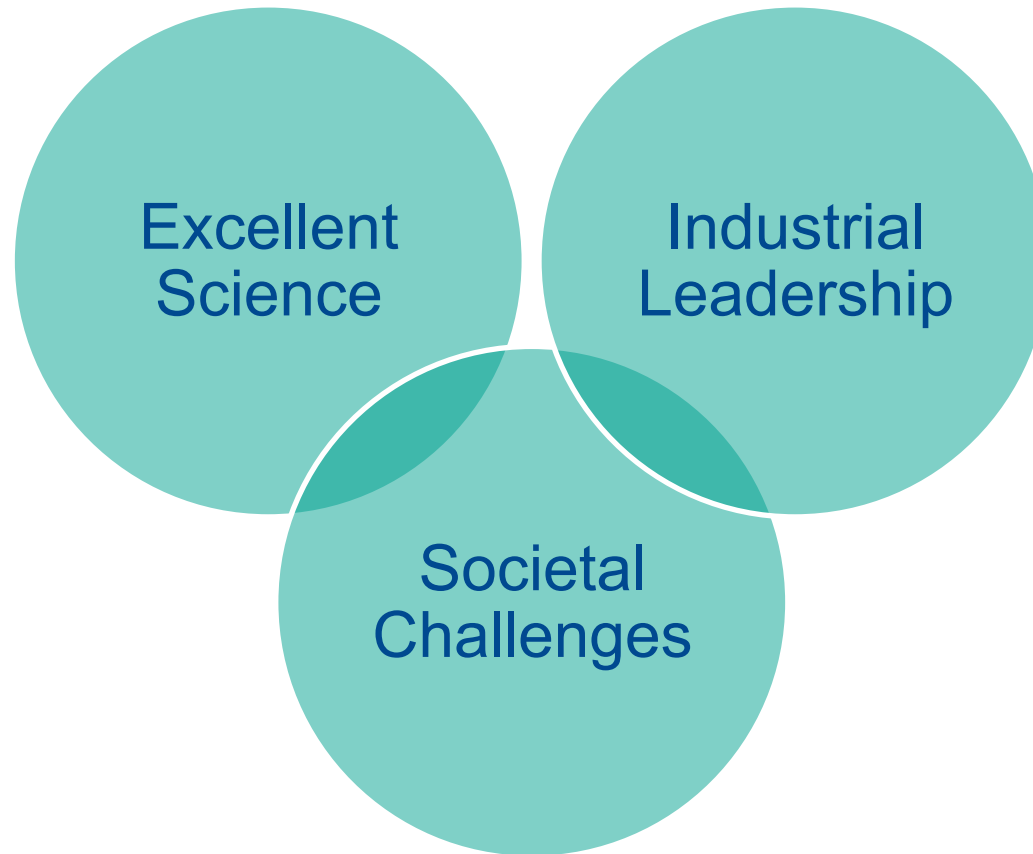
- Single set of rules for participation, coherent with other new EU Programmes
- One project – one funding rate
 - Eligible costs: direct + indirect (flat rate, 25% of direct costs)
 - 100% for research projects;
 - 70 % for activities closer to market (100 % for non-profit)
- Simple evaluation criteria: Excellence, Impact, Implementation
- New funding schemes: pre-commercial procurement, prizes, loan and equity instruments, etc.
- SME instrument

Eligibility

General Horizon 2020 eligibility requirements:

- 3 legal entities from minimum of 3 EU Member states or Associated Countries
- All three Legal Entities must be independent of each other
- Other partners added per requirements of project/partner mix
- Some other special eligibility criteria may apply – specified in call documents
- International cooperation welcome: check eligibility

Horizon 2020: The three priorities



Horizon 2020 - Excellent Science (c€24.41Bn)

European Research Council (ERC) <i>Supporting world leading scientists in blue sky research</i>	13.09
Future and Emerging Technologies (FET) <i>Collaborative research to open new fields of innovation</i>	2.67
Marie Skłodowska-Curie actions (MSCA) <i>Opportunities for training and career development</i>	6.16
Research infrastructures (including e-infrastructure) <i>Ensuring access to world-class facilities</i>	2.49

Horizon 2020 – Industrial Leadership (c17€Bn)

Leadership in enabling and industrial technologies (LEIT) <i>ICT (45 %), nanotechnologies (22 %), biotechnology (3 %), etc</i>	13.56
Access to risk finance <i>Leveraging private finance and venture capital for research and innovation</i>	2.84
Innovation in SMEs <i>Fostering all forms of innovation in all types of SMEs</i>	0.6 complemented by c. 20% of societal challenges and industrial leadership and 'access to risk finance' with strong SME focus

Horizon 2020: the societal challenges (c29.67€Bn)

Health, demographic change and wellbeing	7.47
Food security, sustainable agriculture & the bioeconomy	3.85
Secure, clean and efficient energy	5.93
Smart, green and integrated transport	6.34
Climate action, resource efficiency and raw materials	3.08
Europe in a changing world - inclusive, innovative and reflective societies	1.31
Secure societies – protecting freedom and security of Europe and its citizen	1.69

Horizon 2020: Understanding ‘Health, demographic change and wellbeing’

Seven focus areas under ‘personalising health and care’:

- Understanding health, ageing & disease
- Effective health promotion, disease prevention, preparedness and screening
- Improving diagnosis
- Innovative treatments and technologies
- Advancing active and healthy ageing
- Integrated, sustainable, citizen-centred care
- Improving health information, data exploitation and providing an evidence base for health policies and regulation

Horizon 2020: 2015 call is now live

2015 call launched on 30 July 2014

Key Deadlines:

PHC 2015 (single stage – deadline 21st April 2015)

PHC 2015 (two stage – stage 1 deadline – 14th October 2014)

DEADLINES ARE ABSOLUTE!!

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CODE	TITLE	BUDGET (€M)	TYPE OF ACTION
PHC 9 - 2015	Vaccine development for poverty-related and neglected infectious diseases: HIV/AIDS	15 – 20	R&I Actions
PHC 15 - 2015	Clinical research on regenerative medicine	4 – 6	R&I Actions
PHC 21 - 2015	Advancing active and healthy ageing with ICT: Early risk detection and intervention	3 – 4	R&I Actions
PHC 25 - 2015	Advanced ICT systems and services for integrated care	3 – 5	R&I Actions
PHC 27 - 2015	Self-management of health and disease and patient empowerment supported by ICT	3 – 5	Pre-commercial procurement
PHC 28 - 2015	Self management of health and disease and decision support systems based on predictive computer modelling used by the patient him or herself	3 – 5	R&I Actions
PHC 29 - 2015	Public procurement of innovative eHealth services	1 – 5	Public procurement
PHC 30 - 2015	Digital representation of health data to improve disease diagnosis and treatment	3 – 5	R&I Actions

SC1 – PHC 2015 (single stage – deadline 21st April 2015)

CODE	TITLE	BUDGET (€M)	TYPE OF ACTION
PHC 2 - 2015	Understanding diseases: systems medicine	4 – 6	R&I Actions
PHC 3 - 2015	Understanding common mechanisms of diseases and their relevance in co-morbidities	4 – 6	R&I Actions
PHC 4 - 2015	Health promotion and disease prevention: improved inter-sector co-operation for environment and health based interventions	4 – 6	R&I Actions
PHC 11 - 2015	Development of new diagnostic tools and technologies: in vivo medical imaging technologies	4 – 6	R&I Actions
PHC 14 - 2015	New therapies for rare diseases	4 – 6	R&I Actions

SC1 – PHC 2015 (two stage – stage 1 deadline – 14th October 2014)

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CODE	TITLE	BUDGET (€M)	TYPE OF ACTION
PHC 16 - 2015	Tools and technologies for advanced therapies	4 – 6	R&I Actions
PHC 18 - 2015	Establishing effectiveness of health care interventions in the paediatric population	4 – 6	R&I Actions
PHC 22 - 2015	Promoting mental wellbeing in the ageing population	4 – 6	R&I Actions
PHC 24 - 2015	Piloting personalised medicine in health and care systems	12 – 15	R&I Actions
PHC 33 - 2015	New approaches to improve predictive human safety testing	10 – 15	R&I Actions

SC1 – PHC 2015 (two stage – stage 1 deadline – 14th October 2014)

Remember the other programmes too!



An SME instrument

“SMEs are encouraged to participate across the whole Horizon 2020 programme. They can engage in collaborative projects as part of a consortium **and** they are supported through a new dedicated SME instrument designed specifically for highly innovative smaller companies. The integrated approach and simplification efforts should lead to a minimum of **20%**, or about €8.65 billion, of the total combined budgets of the specific objective 'Leadership in enabling and industrial technologies' and the 'Societal Challenges' going to SMEs. Over the course of Horizon 2020, at least **€3billion** will be allocated to the SME instrument.”

<http://ec.europa.eu/programmes/horizon2020/en/h2020-section/sme-instrument>

<http://een.ec.europa.eu/>

An SME instrument

THE THREE PHASES

Phase 1: Proof of Concept

Input:

Idea/Concept in
"Business Plan I" (~ 10 pages)

Main Activities:

- Feasibility of concept
- Risk assessment
- IP regime
- Partner search
- Design study
- Pilot application

Output: elaborated
"Business plan II"

*Lump sum: around 50.000 €
~ 6 months*

Phase 2: Development and Demonstration

Input:

"Business plan II" + "Description of activities under Phase2" (~ 30 pages)

Main Activities:

- Development Prototyping
 - Testing
 - Piloting
 - Miniaturisation
 - Scaling-up
 - Market replication
- Design & creation of innovative applications to foster the delivery of mobile public services
- New business model for SMEs in traditional sector to innovate

Output: investor-ready

"Business plan III"

*Output based payments:
1 to 2,5 M€ EU funding
~ 12 to 24 months*

Phase 3: Go-to-Market, commercialisation

Input:

"Business plan III"

Opportunities:

'Quality label' for successful Phase 1 & 2

Easier access to private finance

Support via networking, training, coaching, information, addressing i.a. IP management, knowledge sharing, dissemination

SME window in the EU financial facilities (debt facility and equity facility)

No direct funding

An SME instrument

Results from the first SME Instrument call (topic PHC-12) are as follows:

- 213 proposals received, 208 evaluated, 24 above thresholds. All these 24 proposals have been shortlisted for funding and are now dealing with the administrative milestones leading to signature of their grant agreements. The indicative budget for these proposals would be € 1.2 Mn.
- 6 of these 24 successful proposals have been submitted by UK SMEs (1 from Northern Ireland, 1 from Scotland, 4 from England)

Horizon 2020– why should it be any different?



Looking ahead – the NHS and Horizon 2020

Number of reasons why scope for NHS (and SME) engagement for 2014-2020 is greater than before:

- Burning platform facing health and social care
- EU innovation agenda fits well with *Innovation, Health and Wealth*
- Greater focus in Horizon 2020 on commercialisation
- Horizon 2020 brings together several EU programmes and simplifies rules
- EC keen to bring wider range of stakeholders together – collaboration the key
- Inward investment critical to wealth creation agenda

Regional collaboration

- Given emphasis on collaboration in Horizon 2020, there is potential key role for AHSNs as a **coordinator**:
 - Can help to **align priorities** and ways of working before seeking European partners
 - Mapping of assets can help with **partner searches**
 - Help ensure the products of H2020 projects are **tested/rolled out/used**
 - Knowledge of experience and interests across a region **captured and accessible**
 - **Entry point** for industry and SMEs with ideas and enquiries from Europe
 - A forum for **intelligence sharing**

The early signs are competitive

H2020-PHC-2014-two-stage (8 topics, €303 million)

- Opened: 11 Dec. 2013
- stage 1 proposals, deadline: 11 March 2014 – 1681 proposals received
- evaluation: => 626 proposals invited to submit full proposal
- stage 2 proposals, deadline: 19 Aug. 2014 (results expected by end of 2014)

Call Topic	Proposals received	Proposals Invited to Stage 2	Probable number of projects funded
PHC-1 (understanding ageing)	358	172	10-12
PHC-5 (stratified medicine)	121	37	4-6
PHC-6 (screening and prevention)	85	32	5-7
PHC-10 (in vitro)	462	138	8-12
PHC-13 (new therapies)	296	128	10-14
PHC-17 (comparing interventions in the elderly)	136	55	8-12
PHC-23 (new models for health and care)	107	33	5-8
PHC-32 (bioinformatics)	116	31	8-12

H2020-PHC-2014-single-stage (8 topics, €185 million)

- Opened: 11 Dec. 2013
- Deadline: 15 April 2014 – 451 proposals received
- evaluation: => in progress (results expected ANY DAY NOW!)

Call Topic	Proposals received	Probable number of projects funded
PHC-7 (pathogens)	11	1
PHC-8 (vaccine development)	5	1-2
PHC-15 (regenerative medicine)	30	6-9
PHC-19 (robotics)	79	6-8
PHC-20 (ICT solutions for independent living)	56	3-5
PHC-26 (mHealth)	254	12-20
PHC-31 (health policy development)	9	2-3
PHC-34 (eHealth interoperability)	7	4



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The long game

What we see in public



Best possible outcome: A one-off success

What we see in public is just a fraction of what really happens



Best possible outcome: On-going success
and influence

A competition for a competition

- Horizon 2020 is a significant, yet finite pot of money for 28 Member States and over 500 million people
- Many competing voices, all more important than the one before
- Never going to be a simple task to understand where its priorities should lie

- It's (mostly) in the lobbying

So it's OK to lobby

- **UK government** lobbying Commission/Council for its priorities – but does the government know what it should be lobbying for?
- **NCPs** sit on Programme Management Committees – do they know what they should be lobbying for?
- **MEPs** sit on Parliamentary Committees – but do they know what they should be lobbying for?

The priority areas chosen to be funded are not there by accident!

Who are the main actors doing the lobbying?

- NCPs
- National & regional governments
- Clinical groups
- Public health networks
- EU umbrella organisations
- Industry
- SMEs
- Institutions
- Charities/third sector
- Academics
- Patient reps
- Commission officials/MEPs themselves



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Getting started

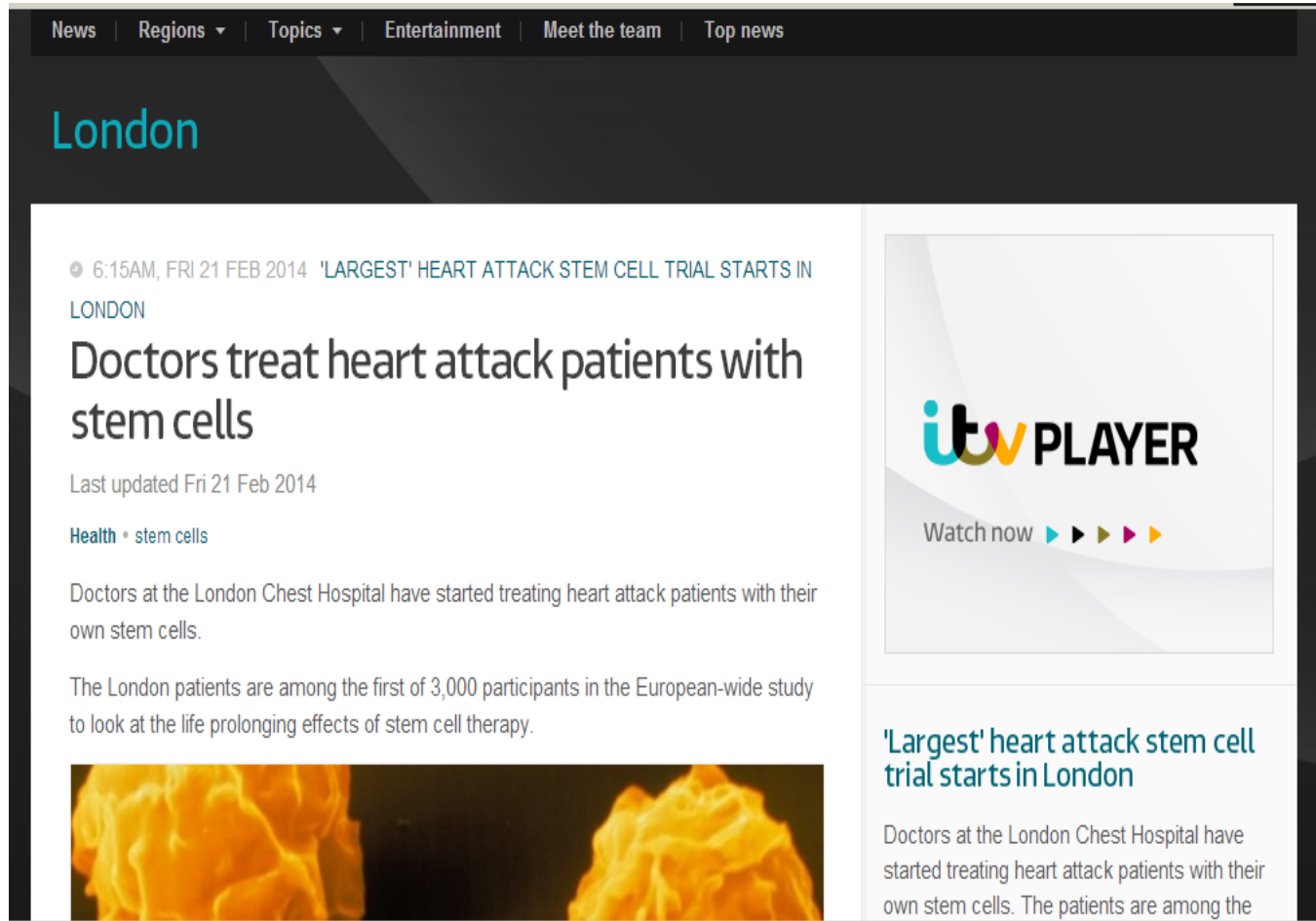
Your starting point should not be Brussels

- **Collaboration**, *Collaboration*, Collaboration
- Domestic networking can provide a solid base
- EU funding offers opportunity for nationally funded projects to be elevated
- Existing contacts, combined knowledge
- Past projects, future opportunities
- AHSNs
- NIHR...
- Bring 'Brussels' in when you are clearer about your strategy

Handy hints

- There are NHS experts in EU research funding out there – can you find them and use them?
- Teaching hospitals/specialist providers good place to start – success breeds success
- Explore EVERY bit of Horizon 2020
- There may be domestically funded projects that can be taken to EU level – eg TSB DALLAS projects
- Utilising our relationships with the academic sector, can we align priority areas to focus on – with an eye to commercialisation and the product!
- Offer to SME groups – are we in a position to facilitate interactions with range of NHS members
- What has been funded before? Can we learn from it?
- Speak to LEPs – they have identified Horizon 2020

And shout about it!



The screenshot shows a news article on the NHS website. At the top, there is a navigation bar with links for News, Regions, Topics, Entertainment, Meet the team, and Top news. Below this, the word "London" is displayed in a large, teal font. The main article text begins with a timestamp: "6:15AM, FRI 21 FEB 2014 'LARGEST' HEART ATTACK STEM CELL TRIAL STARTS IN LONDON". The headline reads "Doctors treat heart attack patients with stem cells". Below the headline, it says "Last updated Fri 21 Feb 2014" and "Health • stem cells". The article text states: "Doctors at the London Chest Hospital have started treating heart attack patients with their own stem cells." and "The London patients are among the first of 3,000 participants in the European-wide study to look at the life prolonging effects of stem cell therapy." There is a photograph of glowing orange and yellow structures, likely representing stem cells or heart tissue. To the right of the article, there is an "itv PLAYER" advertisement with the text "Watch now" and a play button icon. Below the advertisement, there is a sub-headline: "'Largest' heart attack stem cell trial starts in London" and a short paragraph: "Doctors at the London Chest Hospital have started treating heart attack patients with their own stem cells. The patients are among the".

National Contact Point (NCP) support

- A UK-wide support network provided by the Technology Strategy Board (TSB) to help you engage with Horizon 2020
- General advice on H2020 participation – help you to make an informed decision (signposting)
- Free, impartial, confidential
- Helpline - scientific priorities, calls, participation rules, financial rules, partnering
- Follow-on advice – negotiation stage, reports, cost claims, IPR, project management
- Informing and Awareness Raising (Infodays, seminars, etc)

Who are your NCPs?



Dr Octavio Pernas

- octavio.pernas@tsb.gov.uk
- Tel: 01302 322633
- Twitter: @H2020_HealthNCP

Alex Harris

- International Strategy Manager
- Medical Research Council
- alex.harris@headoffice.mrc.ac.uk
- Tel: 020 7395 2214

Early NCP intel



UK Input into HORIZON 2020

SOCIETAL CHALLENGE: Health, demographic change and wellbeing

The MRC currently leads the UK delegation on the FP7 Health Programme Management Committee (PMC). The PMC consists of a delegation from each European Member State and one of the Committee's roles is to input into and approve the final content of the calls published under the FP7 Health Theme.

The committee/advisory structure for Horizon 2020 has yet to be confirmed; however, the MRC is currently welcoming suggestions for call topics from UK organisations and researchers with an interest in the Horizon 2020, Societal Challenge: Health, demographic change and wellbeing.

Submission content

All submissions should be prepared using the form below. Submissions should include the text of a call that you would like to see in future Work Programmes; submissions should not describe individual research projects.

Please clearly state what the expected outcomes of the projects funded under your proposed call would be. Please also provide a justification, focusing on both the importance of the research topic and why the topic should be funded at a European level rather than through national bodies.

If you are aware of researchers in other countries who would be interested in responding

HORIZON 2020 – WORK PROGRAMME 2014 – 2015
Health, demographic change and wellbeing

COUNCIL DECISION ESTABLISHING THE SPECIAL EUROPEAN PARTNERSHIP FOR RESEARCH AND INNOVATION (2014)

WORK PROGRAMME 2014 – 2015
Health, demographic change and wellbeing

A very recent example

“The eight main themes proposed with their potential strategic priorities in the report for the calls 2016–2017 are:

- 1) Ageing at large
- 2) Personalized medicine
- 3) ICT for health
- 4) Population health and health promotion
- 5) Infectious diseases
- 6) Early development
- 7) Sustainable health and care systems
- 8) Environment and health challenge”

Deadline 20 September 2014

European Partners – finding a match

Often toughest part of the puzzle

- no exact science but critical to success
- need to be aware of what you offer as a partner and what your consortium is missing

Where to look?

- Existing networks/research/conversations/successful partners
- EIP AHA Marketplace & European Reference Sites
- www.Healthcompetence.eu
- <https://connect.innovateuk.org/web/fp7-uk-health>
- <http://ec.europa.eu/research/participants/portal/>
- <http://www.fitforhealth.eu/>
- www.nhsconfed.org.uk/europe
- www.h2020.uk.org

Wrapping up

- Past experience has shown UK actors benefit from EU funding to large degree – however input is ‘unbalanced across sectors’
- Innovation now at heart of what NHS is doing – we need to look at all possibilities to help bring change
- Much better cohesion with Industry and Academia needed
- Health service should focus on opportunities for new ideas to be tested, adopted and spread - at scale and pace
- A regional footprint can be very helpful- sharing experience and understanding, leading and coordinating
- It’s a collaboration - find your part in the jigsaw

So, you want to get involved?

- Sign up for our bulletin
 - Keep an eye on our website
 - Read our briefings
 - Follow us on twitter
 - Talk to your AHSN
 - Tell your colleagues!
-
- Michael.wood@nhsconfed.org
 - www.nhsconfed.org/europe
 - @NHSConfed_EU