PROPOSED COURSE AGENDA

Course overview	
Course Title:	**Adoption and Implementation in the Health and Social Care systems for SMEs**
Course sub-title or strap line:	Understanding the UK health and social care systems to support planning for the adoption and implementation of innovative products.
Planned outcomes	
Learning objectives: a. **Knowledge-based learning objectives**	By the end of this course participants will understand the stages they need to follow to make progress in development of their health/med-tech innovation, and organisations positioned to support them in that journey, with opportunities to make engagements with some of these during the course. By the end of the course participants will be able to: 1. Identify the UK health and/or social care pathway their idea could be used in (setting, market gap, user need), 2. Clearly describe the value proposition for their innovation, in a way recognisable to and validated with users, payers and other stakeholders in its intended setting(s), 3. Describe the existing products, job roles, practices, pathways and culture in current place that the innovation would need to impact with or displace, and changes to these that would be required to achieve successful implementation and adoption, 4. Map out the development pathway, regulatory strategy and route(s) to market at scale in the UK, including all critical-path stages, the requirements to pass these and related stakeholders, and resources available to support this journey, 5. Identify the relevant stakeholders to engage with to ensure co-design and alignment with user and system requirements and priorities; within this to understand the cultural conditions relevant to adoption of the innovation, 6. Identify and understand the necessary evidence and other information required for development and adoption, around safety, efficacy, regulatory approval, and impact in real-world settings, 7. Identify the protectable intellectual property associated with the innovation and mechanisms for protection and describe the reasons for protecting it. In this context, describe the mechanisms for determining freedom to operate.

b. Skills-development objectives:	By the end of this course participants will be able to: 8. Build-in considerations around product adoption and implementation into their innovation development programme, 9. Discuss and write about IP they are responsible for in ways that enable full participation in collaboration to further develop the innovation, whilst avoiding disclosure or breach of unprotected IP, 10. Assemble appropriate teams, write effective grant applications and make effective presentations to funding panels to support the necessary development processes, 11. Discuss their innovation effectively with stakeholders for insights purposes, whilst reflecting the development stage of the product.
Value the course will offer to participants:	Participants will be well-prepared to incorporate considerations around product adoption and implementation into their innovation development programme from the earliest stage, thereby avoiding having to retrospectively do this at a later, more expensive, and more delaying stage. This should render them more attractive to investors and funders and streamline their route to implementation and impact. Action learning sets will be established for participants using the speakers and mentors, building ties & trust to support shared continuous learning. Participants will be encouraged to take an active part in these groups.

Agenda on following pages

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Time	Topic	Sub-topic	Learning objective	Interactivity
Day 1 – Considerations for developing a health / med-tech product				
Evening before: 1. Presentation by NIHR Innovation Observatory - their role and view of innovation, why this course, their experience of horizon scanning for devices & diagnostics, risk of non-adoption (even when they see them at TRL4-5) due to lack of engagement at the right level at the right time. 2. Introduction from each company (10min): *Presentations will be recorded for comparison with end-of-course presentations, to demonstrate development.* • A bit about themselves as innovation lead • Description of the innovation & TRL • Unmet patient/system need it responds to • How this need is currently met • How it offers value • Who will pay for it and why • Route to market from current position 3. Evaluation baseline assessments 4. Action Learning sets and access to peer and mentor support between course days; extension work; preparing ahead of each day; learning from their existing product on the market				
09.00	Intro to the day	Topics, timings, breaks, interaction		
09.10 *(20min)*	Intro & context - Patient need and benefit	Setting patient need and benefit as the starting point for innovation.	Understanding the importance of clearly defining the unmet need at the outset and throughout development	Review examples of successes and failures from this perspective
09.30 *(45min)*	Clinical co-design	Establishing a clinical advisory lead and board Co-design with clinical staff and expert stakeholders How to undertake Ensure co-design across a broad, representative group Developing clin. Champions/ KOLs	Understanding the requirement for broad expert engagement	Map what is known as fact from clinical engagement to date (separate from assumption & own experience)
10.15 *(45min)*	Patient & public co-design (basic principles, building to day 3)	Importance of lay engagement strategies for PPIEP*, what good looks like Resources & support	Understanding the requirement for structured PPIEP. See the value of patient stories, their treatment pathways, and parallel	Map the questions that should be asked of patients and wider public for the innovation

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		Patient & public involvement, engagement & participation	options to designing in adoption and implementation.	
11.00	**Break**			
11.15 *(45min + 15min workshop)*	Intellectual property	Freedom to operate & prior art Protecting IP – importance & pitfalls Ownership and value	Applying concepts of IP to the innovation (LO 9)	Workshop – in pairs, describe own innovation without disclosing IP *(15min)*
12.15 *(45min)*	Regulatory affairs	Regulatory landscape for MD, IVD, Meds, biocides, cosmetics, PPE, IG Quality systems Regulatory plans Managing risk across development (identify, register, mitigate, avoid) Resources Engaging support	Understanding legislation and standards that apply, the regulators enforcing them and how to comply	Map regulation that applies to the innovation
1.00	**Lunch Break**			
1.45 *(45min)*	Testing & trials	Types – UX, pre-clinical, clinical investigation (safety, efficacy, accuracy), post-regulatory (impact, extension) Research governance Role of NIHR CRN & MICs	Understanding the place of testing in development and staging of testing	
2.30 *(30min)*	NHS technical requirements and standards	DTAC components NHS coding, eg SNOMED, DM+D, developer resources NICE evidence stds framework	Understanding the post-regulatory requirements NHS organisations have before purchase	
3.00 *(45min)*	Technical development	Organisations, resources and support	Understanding the support available for technical development	
3.45	**Break**			
4.00 *(30min)*	Grant funding to support early prod. development	Types of public grant Horizon scanning for grants Developing a grant team How to apply effectively Support available (RSS)	Identify how to make best use of grant opportunities	Review good and bad examples of applications for same grant (anonymised)

Time	Topic	Sub-topic	Learning objective	Interactivity
4.30 *(15min)*	AAC & NHS Innovation Service	AAC innovation pathway Place of NHS-IS in development. AI & Digital Regulation site, NIA	Understand NHS resources for innovators	
4.45 *(15min)*	Review of the day	What was covered evening and today When & Why to stop, and on what basis Evaluation – feedback & project Topics for next session – eve & day Preparation before next session Peer support network & support	Optimising impact of the programme	
5.00	**Close**			

Day 2 – Describing product value in an NHS and patient context

Time	Topic	Sub-topic	Learning objective	Interactivity
		Evening before: Recap of day 1 including reflections from participants Introducing concept of value propositions to stakeholders (patients, clinician, organisations, payers) Individual value proposition development with mentoring		
09.00	Intro to the day	Topics, timings, breaks, interaction		
09.15 *(15min)*	NHS structure	Commissioning Organisations and care settings Budget silos Commissioner-provider split (constant change)	Understanding the organisations the innovation will be purchased by and used by	Review value proposition – which organisation uses, which might pay. Identify potential barriers
10.00 *(45min)*	NHS & funders priorities	Long Term Plan Net Zero Health Inequalities Equality, Diversity Inclusion Local priorities & beyond	Understanding the NHS's higher level priorities in order to align to them, and impact on development, testing and future procurement	Map national priorities to the innovation
10.45 *(45min)*	Patient & public priorities	Placing patient central in care Principles of patient engagement - in product design - in trial design	Understand the NHS priority of putting patient at the centre of decisions about them, and developments that will affect them.	Map how patients and public have been involved in product concept development so far.

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		- in pathway re-design - relevance to grant funding Ensuring inclusivity and addressing health inequalities	Understand importance to UK & NHS of inclusion; explore digital exclusion How this is central to grant funding.	Map areas to engage in on-going development, to build on in PPIEP session Day 3 Map potential areas where inclusivity may not be addressed (incl digital groups who access healthcare less). Keep to develop on Day 3
11.30	**Break**			
11.45 *(45min)*	Reimbursement for NHS services	Secondary care – NHS payment scheme Primary Care – GP contract, IIF, QOF, pharmacy, dentistry	Understand how money moves to pay for the innovation, to refine the VP	Map re-imbursement for the innovation and therefore considerations for a financial justification
12.15 *(45min)*	Purchase decision making in NHS settings	Public sector procurement as it applies to NHS Internal purchase processes, stakeholders, structures (primary & secondary care). Business cases part 1 (process)	Understanding the complex processes involved in deciding to purchase and undertaking procurement, to ensure a suitable implementation strategy (limited focus on procurement practice at this stage)	Map the purchase route for the innovation
1.00	**Lunch Break**			
1.45 *(45min)*	Balancing cost and value	Financial value in NHS context Identifying releasable savings Clinical value in financial terms Cost of implementation	Introduction to principles of health economics to build on in next session	Review proposed cost justifications and savings
2.30 *(45min)*	Market research	Importance of qualitative market research to identify value Tips for undertaking Reference to PPIEP on Day 3	Applying qualitative market research to the innovation development	Plan qualitative market research strategy
3.15	**Break**			
3.30 *(30min)*	Market appraisal	What do services currently do for the problem being addressed. What's the gap and consequence? What other solutions exist for this area – objective comparison. How to assess developments in pipeline	Understand the alternatives to the innovation, and therefore how to identify value of the innovation in context.	

Time	Topic	Sub-topic	Learning objective	Interactivity
			Understand market appraisal principles, for UK and international markets	
4.00 (45min)	Reviewing the Value Propositions	Review and refine the VP from evening before How the VP might be used going forward	Assimilate learning from this day's sessions	Time refining the VP with mentoring and peer-review Review examples of good and bad VPs
4.45 (15min)	Review of the day	What was covered evening and today Evaluation – feedback & project Topics for next session – eve & day Preparation before next session Peer support network & support	Optimising impact of the programme	
5.00	**Close**			

Day 3 – Evidencing value and impact to NHS customers

	Evening before: Recap of day 2 including reflections from participants Mapping a go-to-market strategy for individuals' innovations (using the Business Model Canvas) Considerations for spread at scale (pre-reading https://nhsaccelerator.com/insight/spreading-psychology-change-academy-helping-build-next-generation-adopters/ and / or Health Foundation Spread Challenge paper https://www.health.org.uk/publications/the-spread-challenge)			
09.00	Intro to the day	Topics, timings, breaks, interaction		
09.15 (45min)	Importance of evidence in NHS decision making	Types of evidence (safety, efficacy, accuracy, impact) Relative value of different evidence forms Independence, peer review & publication Market research to identify the evidence expected.	Understand the importance of evidence in NHS decision making, compared to other markets	Map the evidence in place already, and identify gaps. Where will evidence generation fit in the development pathway
10.00 (45min)	Health Economics	Place in go-to-market Types of analysis Budget impact modelling Sources of NHS data (Coding Reference costs (NHSPS), HES, QOF	Understand the place of health economics in purchase decision making. Understanding cost-consequence analysis as a route to understanding	

Time	Topic	Sub-topic	Learning objective	Interactivity
			pathways and impact of change on systems and patients Understand the data available in analysing value	
10.45	**Break**			
11.00 *(45min)*	Real world evaluation of impact	Importance and uses Strategies Developing research questions from the value proposition Practicalities & pitfalls Finding unintended consequences Support available	Understand the importance of real-world evaluation and how this is used to evidence the value proposition	Convert VP impacts into research questions, map to data collection approaches
11.45 *(60min)*	Patient and public co-design (involvement, engagement & participation) as a form of evidence (part 1 – split across lunch)	Part 1 - Policy references Examples of when good engagement has influenced design, and lack of engagement has led to failure. Principles of PPIEP	Understand the importance of engaging patients, carers and wider public in product, trial, and clinical pathway design. Identify resources and experts who can support this work	Further develop the map of patient & public engagement from Day 2, to add considerations from today
12.45	**Lunch Break**			
1.15 *(60min)*	Patient and public co-design (involvement, engagement & participation) as a form of evidence (part 2)	Part 2 - Resources & guidance Organisations that can support	Understand the importance of engaging patients, carers and wider public in product, trial, and clinical pathway design. Identify resources and experts who can support this work	Further develop the map of patient & public engagement from Day 2, to add considerations from today
2.15 *(45min)*	NICE appraisal	Types of guidance and appraisal Linked organisations (HTW, SHTG) Scientific Advice Royal colleges guidance	Understand how HTA and guidance is applied in decisions to use/purchase, to support planning for this from an early stage	
3.00	**Break**			
3.15 *(45min)*	Value-based procurement	Principles and application	Consider how VBP apples to the innovation	
4.00 *(45min)*	Business case part 2 (justification)	Developing the business case justification	Be able to develop a business case for the innovation recognisable to NHS purchasers, for completion once data available.	Map the logical arguments for a potential business case.

Time	Topic	Sub-topic	Learning objective	Interactivity
			Identify how the patient voice should be included in a business case	
4.45 (15min)	Review of the day	What was covered evening & today. Evaluation – feedback & project Topics for next session – eve & day Preparation before next session How to prepare for pitches on Day 4 Peer support network & support	Optimising impact of the programme	
5.00	**Close**			

Time	Topic	Sub-topic	Learning objective	Interactivity
Day 4 Morning – Implementation in NHS settings				
	Evening before: Reflection on the course and evaluation Talk from Spread Challenge (Health Foundation) authors Talk from leader in health technology implementation A few words on how to consider international markets Final work on pitch presentations with mentoring			
09.00	Intro to the day	Topics, timings, breaks, interaction Pitch panel later in PM	Learning objective 5 & 6	
9.15 (15min)	The "Why"	Justification for developing the product, using materials from Simon Sinek on 'starting with why'	Refrain on the same topic from Day 1, for context today	
09.30 (45min)	Stakeholders	Categories of stakeholder in the implementation process. Build on the VP	Be able to identify stakeholders in the implementation process, and the opportunity and risk they present, their barriers & motivations, incl those outside the organisation;	Stakeholder mapping exercise - who to include and plotting a traditional stakeholder matrix
10.15 (45min)	Pathways	Identify the current pathway, and what has to change to implement the innovation Bedding-in and de-implementation	To identify the knowledge needed to be gained for future successful implementation. System levels (Micro, meso, macro), from an NHS perspective.	Consider how this applies to own innovation
11.00	**Break**			

Time	Topic	Sub-topic	Learning objective	Interactivity
11.15 *(45min)*	Complexity	Factors which contribute to complexity Demands on NHS staff time and impact on implementation. Understanding the effort and cost of change Strategies for reducing complexity	Understand the principle of complexity in implementation and ways to analyse and reduce it	Consider how this applies to own innovation, and how complexity might be reduced or planned for at this stage.
12.00 *(60min)*	Implementation planning and strategy	How to plan for implementation, across the stages of development including early testing, trials and pilots, and examples of a good plan. Models for implementation Strategies for de-risking implementation	To enable future effective planning for successful implementation. Consider risks, traps and tips with pilots to be able to deliver at the lowest risk to the customer and the company. Understand the importance of evaluating implementation (vs impact) to reassure the customer and support sales elsewhere. Relevance of implementation strategy to scaling and appreciating differences between settings.	None
1.00	**Lunch Break with networking**			
	Day 4 Afternoon – Pitch panel – presenting value proposition and route to market			
2.00	Pitch panel comprised of health and industry leads **To present: Value proposition and route to adoption**, based on learning from the course. 5min each (10min if lower delegate numbers) Followed by • panel feedback, then • speed mentoring with 4-5 stations, 5 min each Purpose for the exercise: By Day 4 the delegate should know and be able to describe the target audiences they will need to present to over the development cycle, eg a grant-funding panel, trial lead, conference audience, potential investor, potential purchaser, etc. The pitches in this afternoon provide experience and preparation for these, so should be presented with this in mind. Typically they should present the innovation, its place in pathways and its value proposition with clear indication of the paying stakeholder and the value to them; it may be appropriate to include the development status and plans going forward.			
4.00	Refreshments and networking			
4.40	**Conclusion**: • Final evaluation • What next • further courses and resources • Ongoing access to the peer support network			
5.00	**Close**			