

- **Purpose of this document**

- 1) To remind participants in the open data system touchpoints about the types of user stories and use cases that serve as the motivation for the open (evidence synthesis) data system

- **Context**

- 1) Example from history: UK train-company owners spent much of the 1800s battling over, coming to agreement on, and slowly implementing an agreement on standardizing train track gauges. When incompatible track widths met, goods and passengers had to be moved from one train to the next, which wasted a great deal of time and money.
- 2) ESIC's situation today: We have weeks or months to come to agreement on and to begin implementing an agreement on a shared data system. We need core elements of a workable open data system by September, by which time 11 sectoral hubs and two regional hubs will be dependent on it. We then need to continue to add elements quickly and in an initial priority order to be set by the sectoral and regional hubs. In the absence of an open data system, we will continue to waste time and money and will (likely irrevocably) cede evidence synthesis to AI companies that do not get the balance right between rigour and speed.

- **User stories and use cases**

- 1) User stories are simple sentences that describe what a user wants to accomplish. They are often written in the form: As a [type of user], I want to [perform an action] so that [I can achieve a goal]."
- 2) Use cases typically elaborate on many aspects of a user story. Here we focus on the basic flow: the ideal sequence of actions where everything works as expected.

- **User story #1:** As a **sectoral hub** leader, I want to access synthesis-ready data and any existing 'already processed' synthesis data so that I can – in response to a request from UN partners (via the Global SDG Synthesis Coalition) – stand up a first draft of a policy-scale, AI-enabled living evidence synthesis on a social-protection question within two weeks and to progressively add rigour and relevance to meet a final deadline in three months → ideal sequence of actions:

- 1) Use a bulk export function to access question-related synthesis-ready data (i.e., data from OpenAlex, UN/MDB evaluation repositories and national research databases with key enhancements like bibliographic meta data, abstract enhancements, context and equity tags)
- 2) Use a bulk export function to access question-related processed synthesis data, including both data at the synthesis level (e.g., AMSTAR assessments, recency of search) and the level of included studies (e.g., data extraction, RoB assessments, countries where studies were conducted)
- 3) Determine whether an existing synthesis can be built upon or a new one started and, for the latter, whether there is a protocol registered in PROSPERO that could be rapidly executed in collaboration with the team that registered it
- 4) Determine – after duplicates from 1 and 2 have been removed – what studies/evaluations still require enhancements (e.g., context and equity tags as in 1 above) and processing (e.g., effect-size data extraction and RoB assessments as in 2 above)
- 5) Complete as many enhancements and as much processing as possible, and complete a first draft of the evidence synthesis, within the required two weeks
- 6) Continue to add enhancements and processing, as well as incorporate feedback from users, in two-week cycles to meet a final deadline in three months, with
 - a) an executive summary that provides trustworthy, actionable insights, including how the insights vary by groups and contexts and with what confidence or caveats

- b) all new synthesis-ready data and processed synthesis data added to the open data system to make it easier for the next group tasked with the same or a related question (knowing that networks like Cochrane will receive revenue for any data that it contributes and that others use in future, and that those whose data Cochrane used will also receive revenue)
- **User story #2:** As a **regional hub** leader, I want to access synthesis-ready data and any existing 'already processed' synthesis data so that I can – in response to a request from a Ministry of Finance and in partnership with a national evidence intermediary that is part of our regional network – provide a contextualized evidence synthesis within three business days → ideal sequence of actions:
 - 1) As with 1 and 2 above, use a bulk export function to access question-related synthesis-ready data and question-related processed synthesis data
 - 2) Determine – after duplicates from 1 and 2 have been removed – what studies/evaluations still require enhancements (context and equity tags as in 1 above) and processing (e.g., effect-size data extraction and RoB assessments as in 2 above) and what the priorities are given the national context (e.g., a landlocked country facing a fragile and conflict-affected situation) and the evidence-support team's human-resource and time constraints
 - 3) Determine whether there are others who added a similar question to a regional question bank who may be interested in co-producing additional contextual variants alongside this prioritized one
 - 4) Complete as many enhancements and as much processing as possible and complete the contextualized evidence synthesis within the required three business days
 - a) an executive summary that provides trustworthy, actionable insights, including how the insights vary by groups and contexts and with what confidence or caveats
 - b) all new synthesis-ready data and processed synthesis data added to the open data system to make it easier for the next group tasked with contextualizing the insights for a different group or context (knowing that you will receive revenue for any data that you contribute and that others use in future, and that those whose data you used will also receive revenue)
 - **User story #3:** As a **multilateral development bank** staffer, I want to have the best available research evidence accessible to me within my bank's diagnostics and project analysis workflows so that I can immediately incorporate it in my analysis – in this case about what's driving under-five mortality in East Africa and what cross-sectoral investment will be most effective (and cost-effective) – alongside other types of information and insights → ideal sequence of actions:
 - 1) Use a filter in the bank's online diagnostics tool to identify the actionable insights from the best available (i.e., highest AMSTAR score, most recent search) evidence synthesis on drivers of under-five mortality, and examine whether the findings from East Africa (or other similar contexts) differ from the more general findings
 - 2) Use a filter in the bank's online project-analysis tool to identify the list of 'best buys' for reducing under-five mortality, and examine whether the interventions address the drivers likely to be particularly important in East Africa and whether the effect-size estimates from East Africa (or other similar contexts) differ from the more general estimates
 - 3) Incorporate the actionable insights into these two workflows, citing the data as having been provided through an API powered by 3ie through its Development Evidence Portal and leveraging additional ESIC data, and knowing that those who contributed data to the analyses will each receive a share of the revenue from the API agreement that is proportionate to their share of the data that was used
 - **User story #4:** As a leader of an **evaluation team in an international assistance funder**, I want to access a list of 'best buys' in education so that I can design a theory of change for my evaluation (to fulfill my team's evaluation function), compare what the program being evaluated did to what the list of 'best buys' would suggest have been done (to support my organization's accountability function), and

ground the recommendations about what can be done better in future on the best available evidence (to support the program's learning and improvement function) → ideal sequence of actions

- 1) Use a next-generation version of existing 'best buys' tools in the education sector that allows me to filter the entire spectrum of educational interventions (e.g., targeting students, parents, teachers, school leaders, system leaders, and government policymakers) by those applicable to the program's geographical remit (Latin America and the Caribbean)
 - 2) Incorporate the actionable insights into my theory of change, program assessment and recommendations, citing the tool as having been provided by the Evidence for Education Network and leveraging additional ESIC data, and knowing that those who contributed data to the analyses will each receive a share of the revenue from the API agreement that is proportionate to their share of the data that was used
- **User story #5:** As a leader in a **research funder**, I want to access two tools, one to empower our peer reviewers so they can confirm whether new proposals for primary research are sufficiently relevant and rigorous and a second so that our board knows whether its funded research has tipped the balance of understanding on prioritized questions in a meaningful way → ideal sequence of actions:
 - 1) Create a working group with ESIC to co-design a peer-review tool that allows a peer reviewer to enter the title and summary from a research proposal, identify matches to questions in the relevant sectoral and/or regional question banks that have not yet been addressed, and identify the feedback that the authors of relevant evidence syntheses have provided to support next-generation primary research (e.g., the design or methodological characteristics needed to provide a more robust answer to the question) and/or
 - 2) Create a working group with ESIC to co-design an impact-assessment tool that allows a research funder to enter the unique project identifiers that they require researchers to include in any publications arising from their funded research, identify matches to studies included in relevant evidence syntheses, and identify which funded studies contributed significantly to current understanding (e.g., tipped the balance to demonstrating the benefit or harm associated with an intervention; contributed to key themes emerging from a qualitative evidence synthesis)
 - **User story #6:** As a staff member in the **UN Partnerships Office**, I want to create a new tool – AI Commons – so that policymakers and stakeholders can make informed choices about which AI tools they use to support sustainable development → ideal sequence of actions:
 - 1) Create a working group with ESIC to co-design an approach to bringing together three key ingredients in the tool:
 - a) 'Use cases' where AI is being used by different development actors to advance development in general and achieve the SDGs in particular; these use cases would be findable by:
 - Issue area: SDG and other tags
 - Actor: The government official, organizational leader, professional, citizen or funder seeking to use AI to achieve a development goal
 - System: The AI tool being used
 - Goal: The specific outcome the actor wants to achieve through the tool
 - e.g., understand a problem and its causes, select solutions, implement at scale
 - e.g., role of advisor, coach, doctor, friend, personal trainer, therapist, tutor
 - Scenario: A sequence of steps describing how the actor interacts with or builds upon the AI tool to achieve the goal; this can include both successful paths and alternative or error paths
 - Stage of development: Idea, piloting and testing, ready and scalable
 - b) Performance metrics on each AI application (i.e., how well does it perform in achieving the goal compared to an available gold standard)

- c) Evidence – from research studies and UN/MDB evaluations – on what’s known about ways to accelerate achievement of the SDGs (i.e., does the AI application support an action that the research evidence indicates would help to achieve SDG goals or targets)
- 2) **User story 6a:** Once AI Commons is operational, as a staff member in a **Brazilian NGO**, I want to monitor and address deforestation in the Brazilian Amazon so that I can contribute to slowing climate change and supporting environmental protection → ideal sequence actions:
- a) Use a filter in AI Commons to find AI tools that help to measure deforestation and to pinpoint areas where a response is needed
 - b) Review the AI tools performance metrics and select the one that would allow us to use AI safely and responsibly
 - c) Use a filter in AI Commons to find interventions that can help to prevent, stop or reverse deforestation, as well as a filter that allows me to focus on interventions relevant in remote areas
 - d) Summarize the list of candidate interventions to bring to a meeting of our NGO’s board to decide which interventions to prioritize when our AI tool pinpoints areas where a response is needed