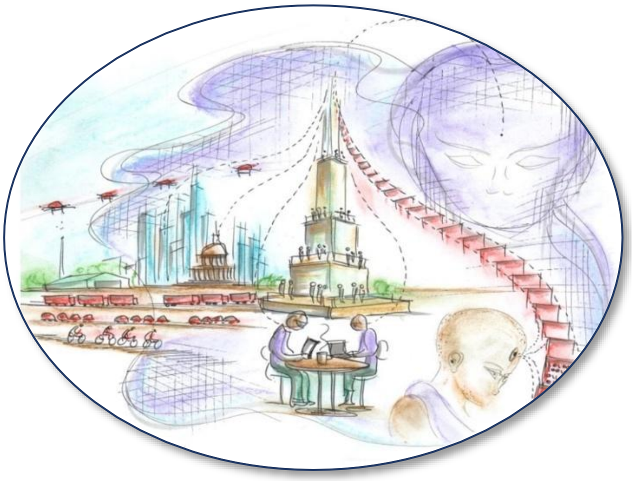
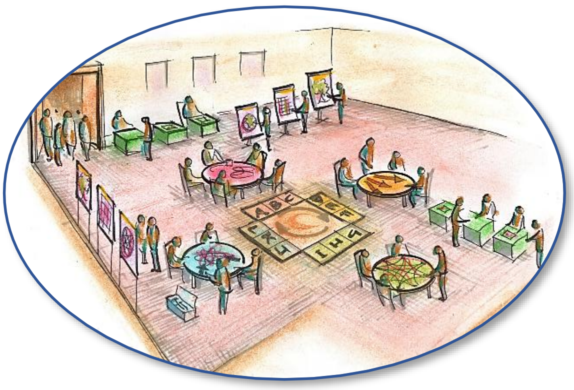
	Mind-Lab ***(Laboratory of collective intelligence)*** ***Working Paper***
	**_FORESIGHT-CHAI_** ***(Foresight with 'Collective Human-Artificial intelligence')***
	**_OUTLINE of PILOT DEMONSTRATION_**
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FORESIGHT-CHAI

(Foresight with 'Collective Human-Artificial intelligence')

OUTLINE of PILOT DEMONSTRATION

Mind-Lab Working paper

(Part version in progress)

JR v0.0 for 23-10-25

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Abbreviations

AI/AGI	Artificial Intelligence / Artificial General Intelligence
'CHAI'	'Collective Human Artificial Intelligence'
CHI	Collective human intelligence
CIQ	Collective Intelligence Quotient
GAFA	'Google, Apple, Facebook, Amazon'
IOT	Internet of Things
R&I	Research & Innovation': similar to 'R&D' (research & development), 'RTD' (research & technology development' or 'STI' (science, technology, innovation).
'STEEPC'	Futures/foresight domains for analysis ('socio-technical-economic-ecological-political-cultural') with many variations

1 Overview

This working paper is an outline of an experimental innovation on ‘Foresight-CHAI’: a structure of enquiry and workshop plan.

Foresight 3.0 is based on the principles of *‘collective human intelligence’*, and AI offers powerful new resources and functionalities: we can frame the combination as ‘***Foresight-CHAI’ (‘Collective Human-Artificial Intelligence’).*** Generally,

- ***AI*** can provide foresight-related ***content***, which appears to be very fast and efficient, along with existential risks;
- Our focus is then on the ***context*** – the ***CHI or ‘collective human intelligence’*** – the social / institutional framing, agenda setting, synergy forming, co-learning, co-creation, and co-production into the ‘real world’, all needed for transformational change;
- the combination of foresight with AI-enabled process, and CHI-focused applications, is explored here as ***Foresight-CHAI*** (Collective Human-Artificial Intelligence).

This raises further questions –

- Challenges of AI-enabled power, control, colonization, into a human domain already divided and conflicted;
- Challenges of disruption / transformation in futures thinking & strategic planning in many domains: public policy, corporates, media, civil society etc.

This Foresight-CHAI program aims:

- Generally, to explore the potential of Foresight-CHAI:
- Develop & evaluate the process structure for both informatics (AI) and ‘intelli-matics’ (CHAI);
- Develop & evaluate applications on topical foresight themes: e.g. urban / regional development, climate change, economic development.

Program - general notes

The table below is based on the synergistic method & pathways toolkit (see annex for general outline). These are then focused & targeted on the foresight challenge / key question.

- Informatics (AI-generated); multi-source AI provides response to structured prompts:
- Intelli-matics (CHAI-generated), responding to AI: reality checks, framing, mutual learning, creative responses, empathy & synergy formation.

The diagram shows the typical 12-step process of Foresight 3.0: this is now extended to show the AI-enabled content on the inner circle ***(‘informatics’):*** and the CHI responses and ‘reality-vision test’ on the outer circle ***(‘intelli-matics’)***.

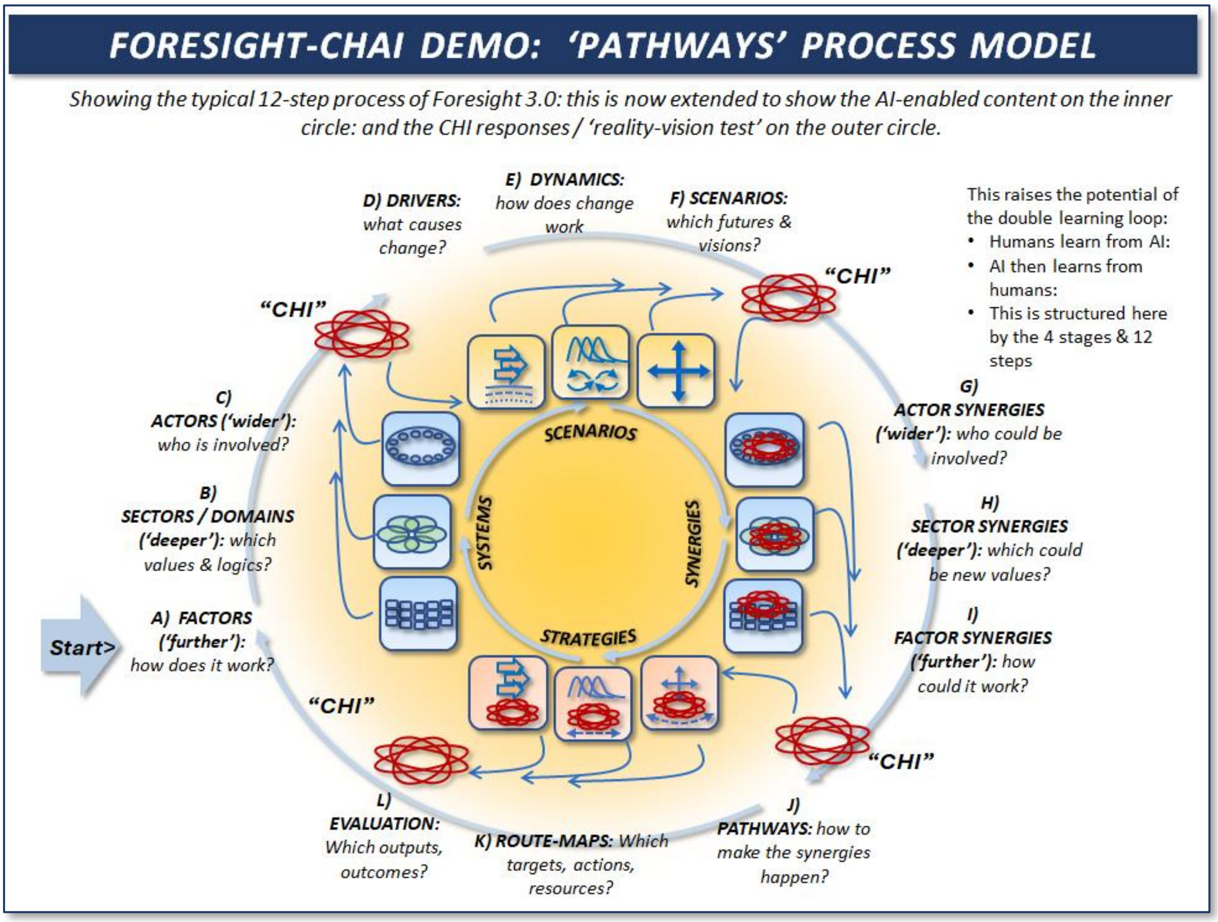


Figure 1: Foresight-CHAI demo: 'pathways' process model

The pilot test aims to reproduce this as far as possible, with a starter question on a tangible issue, such as:

- What is the best way for this city / region to achieve 'net-zero' by 2050 – or –
- What is the best way for this city / region to achieve a circular economy by 2050

We propose to run this in various locations, with a mix of online / in person participants.

Program outline – from 'systems' to 'scenarios'

	General questions	*Informatic process (AI- generated)*	*Intelli-matic process (CHAI-generated)*
1. SYSTEMS			
A) FACTORS ('further'):	*how does the system work?*	*Horizon scanning: causal chain analysis*	*Reality check: focus on systems scoping*
B) SECTORS / DOMAINS ('deeper'):	*which values & logics?*	*STEEP analysis*	*Reality check: focus on knowledge domains*
C) ACTORS ('wider'):	*who is involved?*	*Actors roles & objectives*	*Reality check: focus on stakeholder agendas, power structures*
			Deliberations on scoping, framing, nuance, context, VUCA ('volatile, uncertain, complex/ controversial, ambiguous')
		Forming next AI prompts>>	
2. SCENARIOS			
D) DRIVERS:	*what causes change?*	*Trend & drivers analysis:*	*Reality check: focus on scope & analysis*
E) DYNAMICS:	*how does change work?*	*Horizons, dynamics, principal axes of change*	*Reality check: focus on horizons & axes*
F) SCENARIOS:	*which futures & visions?*	*Alternative futures based on principal axes*	*Creative scenario imagineering / vision forming*
			Deliberations on nature of change: alternative axes: creative scenarios: goals & proto-visions.
		Forming next AI prompts>>	

Program outline – from 'synergies' to 'strategies'

	General questions	*Informatics (AI-generated)*	*Intelli-matics (CHAI-generated)*
3. SYNERGIES			
G#1) ACTOR SYNERGIES	*who can realize the vision with who? (1/1)*	*Potential 1/1 stakeholder synergies: analysis & recommendation*	Reality / vision check: by each 1/1 stakeholder pair (or role play)
G#2) ACTOR SYNERGIES	*who can realize the vision with who? (many/many)*	*Potential multi-coalition synergies: analysis & recommendation*	Reality / vision check: by each stakeholder coalition (or role play)
H) SECTOR SYNERGIES:	*which could be new values & logics?*	*Potential synergies against STEEP domains*	Reality / vision check: by each STEEP domain type
I) FACTOR SYNERGIES:	*how would the new synergies work?*	*Testing potential synergies against causal chains*	Reality / vision check: by causal chain logic
			Deliberations on scoping of vision: multi-level systems of power & ideology: feasibility of transformation: formation of strategic goals.
		Forming next AI prompts>>	
4. STRATEGIES			
J) PATHWAYS:	*how to take the potential goals / synergies into reality?*	*Form & test potential priority pathways, based on actor/sector/factor synergies*	Reality / vision check: by actor/sector/factors
K) ROUTE-MAPS:	*Which strategic actions & resources are needed?*	*Form & test potential road-maps, based on goals, actions, resources*	Reality / vision check: by goals, actions & resources
L) MANAGE-MENT	*What actions, when, where, how much: evaluation & feedback*	*(this is not included at this stage)*	*(this is not included at this stage)*
			Deliberations for consensus on visions, synergies, goals, strategies
		Summary of foresight-CHAI	Human presentation & application

2 Further notes on Foresight-CHAI

Multi-level learning

These are notes and thinking in progress, following from the first workshop in July 2025.

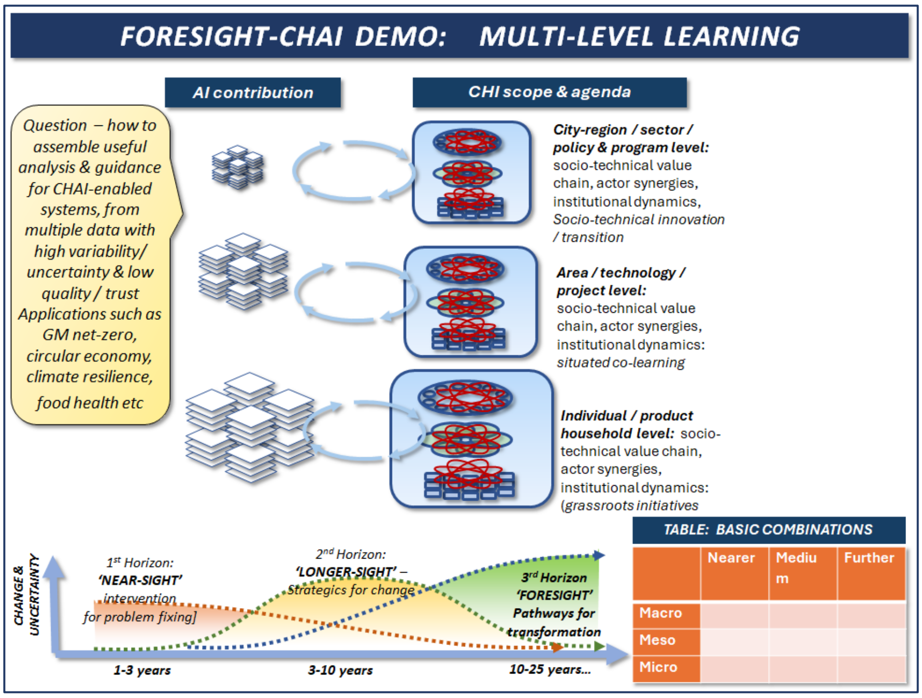


Figure 2: Foresight-CHAI demo: multi-level learning

Question: how to assemble useful analysis & guidance for CHAI-enabled systems, from multiple data with high variability/ uncertainty & low quality / trust

This diagram shows the multiple levels of application, from strategic to local.

For applications the table shows some basic combinations:

	Nearer	***Medium***	***Further***
Macro	Policy development	Policy foresight	Strategic foresight
Meso	Sector / area planning	Sector / area foresight	Sector / area strategic foresight
Micro	Local action	Local planning	Local visioning

AI-CHI interactions at actor level

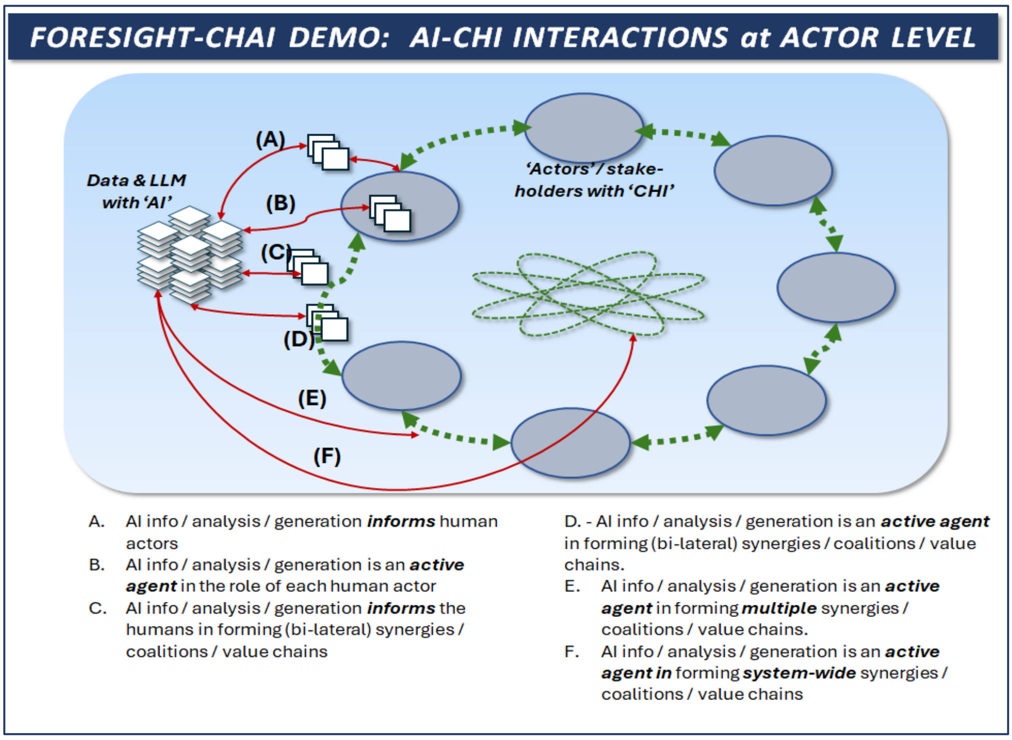


Figure 3: Foresight-CHAI demo: AI-CHI interactions at actor level

Here we see the crucial exchange between AI and CHI, visualized as a hierarchy of stakeholder synergies.

A. AI info / analysis / generation ***informs*** human actors

B. AI info / analysis / generation is an ***active agent*** in the role of each human actor

C. AI info / analysis / generation ***informs*** the humans in forming (bi-lateral) synergies / coalitions / value chains

D. AI info / analysis / generation is an ***active agent*** in forming (bi-lateral) synergies / coalitions / value chains.

E. AI info / analysis / generation is an ***active agent*** in forming ***multiple*** synergies / coalitions / value chains.

F. AI info / analysis / generation is an ***active agent in*** forming ***system-wide*** synergies / coalitions / value chains

In the current pilot we aim to include A, B, C: if successful then we begin to look at D & E.

Pathways - 'systems & scenarios'

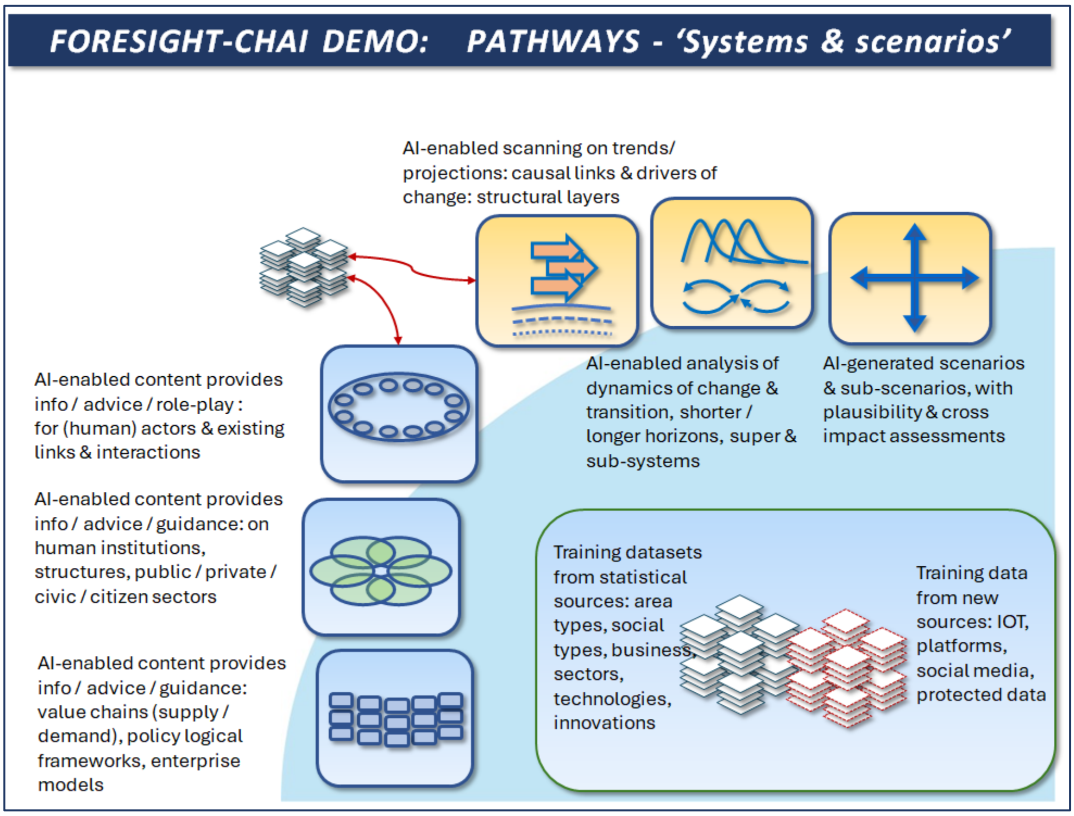


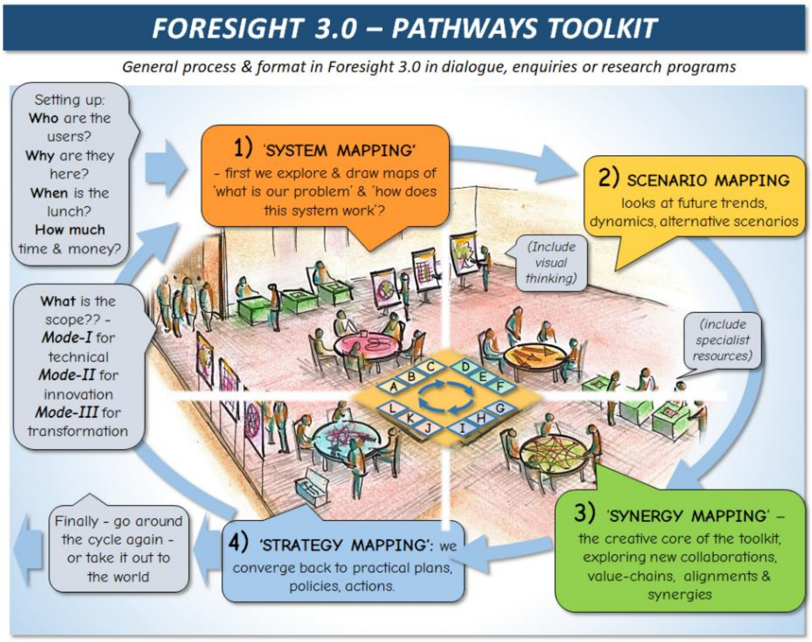
Figure 4: Foresight-CHAI demo: pathways - 'systems & scenarios'

Here we see a graphic version of the first 2 stages of the process in Figure 1: '*systems & scenarios*'. Also there are further notes on each of the 3 steps in each stage:

a) AI-enabled content provides info / advice / guidance: value chains (supply / demand), policy logical frameworks, enterprise models
b) AI-enabled content provides info / advice / guidance: on human institutions, structures, public / private / civic / citizen sectors
c) AI-enabled content provides info / advice / role-play : for (human) actors & existing links & interactions
d) AI-enabled scanning on trends/ projections: causal links & drivers of change: structural layers
e) AI-enabled analysis of dynamics of change & transition, shorter / longer horizons, super & sub-systems
f) AI-generated scenarios & sub-scenarios, with plausibility & cross impact assessments

3 Annex: summary of synergistic method

The foundation of the Foresight-CHAI is the Foresight 3.0 / 'pathways toolkit'. We use visual thinking where possible, with a menu of simple templates as in Figure 2. These can work both on-site and on-line, and where possible, we combine system mapping with creative thinking such as cartoons, stories, role-plays etc: (generative AI brings new possibilities to be explored).



The process can range from creative free thinking, to highly structured questions with technical analysis. Similar programs can be designed for hours, days or months, depending on resources.

Sources:

- special issue in Foresight journal https://www.emerald.com/insight/publication/issn/1463-6689/vol/27/iss/2
- Foresight 3.0 theory & practice - *https://doi.org/10.1108/FS-01-2025-0007*
- 'Foresight-wise' program at the Mind-Lab: *Foresight-wise*
- Example foresight in Ukraine - *http://www.recpc.org/circular-economy/.*
- Source text on collective intelligence - ***https://tinyurl.com/567j2yzd***