H HEURISTICS

H HEURISTICS STRATEGIC UPDATE

The November 2026 Update

From research to influence, adoption and a better century



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H Heuristics Research Report · November 2026

researchreports.hheuristics.com

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ABOUT THIS REPORT

Suggested citation. Hughes, H. (2026). *The November 2026 Update: From Research to Influence, Adoption and a Better Century*. H Heuristics Research Report, November 2026.

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Estimates. Citation and influence figures are general estimates from a Bass diffusion model with stated assumptions (Sections 8 and 9); actual results may vary. Contribution figures in Section 10 are illustrative.

EXECUTIVE SUMMARY

Executive Summary

On November 12, 2026, H Heuristics took a major step. It moved from developing and publishing ideas to actively spreading them, so they can shape how people, institutions and governments approach development this century.

For several years H Heuristics has built a body of original ideas about development, risk and resilience. On November 12, 2026, five connected publications set out what comes next. Together they describe an organization that is no longer only a source of research, but an **intellectual architecture, research dissemination and development-influence initiative**: one that develops ideas, connects them, shares them widely and helps put them to work.

~670	~2,900	~116	1.4 bn
independent citations by 2035 in the central scenario	independent citations by 2050 (central); range about 1,100 to 7,900	policy and institutional documents drawing on the work by 2050 (central)	person-years of basic services gained if the wider movement closes just 1% of the gap to proven pace

The update rests on a simple chain of reasoning: *Ideas can influence decisions. Decisions can direct investment. Investment can change development trajectories.* Research builds credibility. Credibility earns citations. Citations widen influence in classrooms, newsrooms and public debate. Influence leads to institutional adoption and policy use. And better policy and investment can speed up sustainable convergence and reduce human vulnerability. Meanwhile, H Heuristics keeps developing new concepts.

Principal points

- **A strategic recalibration.** H Heuristics now treats intellectual influence as an instrument of development. Five connected developments mark the change: concept development, a macroeconomic architecture, century-scale optimization, global dissemination and practical influence (Section 1).
- **Five publications, one strategy.** Two research reports, one initiative report and two essays, all released on November 12, together set out the ideas, the system that links them and the plan to share them (Section 2).
- **A hopeful finding.** Century Pathways shows that the century can become more dangerous while people's lives still improve. At proven peer pace, time spent without five basic services falls from 859 billion person-years (if access stood still) to 112 billion (Section 3).
- **A recognizable framework.** Six concepts now form one system that runs from diagnosing risks to valuing the lives protected (Section 4).

- **A plan to spread the ideas.** The Global Concept Adoption Initiative and the essay *From Ideas to Trajectory* set out how research, digital reach and social capital work together. Outreach to relevant organizations is already under way (Section 5, Section 6).
- **A positive feedback loop.** Published research, outreach, engagement and feedback reinforce one another, so each step makes the next one easier (Section 7).
- **Reasonable, rising impact.** The central scenario reaches about 140 independent citations by 2030, 670 by 2035 and 2,900 by 2050 (Section 8). These lead to wider influence: about 48 university courses, 116 policy and institutional documents and 39 engaged institutions by 2050 (Section 9).
- **Toward better outcomes.** If those ideas help speed progress even slightly, the gains in human terms are large: billions of person-years of electricity, clean cooking, water, sanitation and internet access (Section 10).
- **New concepts keep coming.** A steady cycle of spotting gaps, defining, testing, publishing, sharing and learning keeps the work fresh (Section 11). The roadmap to 2050 marks the start of the execution era (Section 12).

Table 1 The November 2026 update at a glance

Question	Short answer	Section
What changed?	H Heuristics moved from producing research to spreading, testing and applying it	1
What was published?	Century Pathways, the Macroeconomic Architecture, the Global Concept Adoption Initiative and two essays	2
What is the big idea?	Development can improve lives faster than the century's hazards grow	3, 4
How will ideas spread?	Open research, personal outreach, digital channels and trusted relationships	5, 6, 7
What impact is expected?	Hundreds of citations within a decade (about 670 by 2035) and thousands by 2050	8
What follows from citations?	Teaching, public debate, institutional adoption, policy use and investment	9
What is the ultimate goal?	Sustainable convergence, lower vulnerability and a better century for humanity	10
What comes next?	New concepts, the first campaigns and a roadmap to 2050	11, 12

Source: H Heuristics.

GUIDE

How to read this report

Each section starts on a new page and can be read on its own. **Sections 1 to 6** describe the update and the five publications. **Sections 7 to 10** follow the chain from citations to influence to better outcomes. **Sections 11 and 12** cover new concepts and the road ahead. Blue text is a link. Projections are general estimates built on stated assumptions; actual results may vary.

SECTION 01

What Changed on November 12, 2026

H Heuristics moved from being mainly a research and concept-development organization to an initiative that develops ideas, connects them, shares them and helps people use them.

IN BRIEF

- The new objective is to influence how people, institutions and governments think about development, risk and humanity's long-term prospects.
- Five connected developments define the change.
- Intellectual influence is now treated as a tool for development, not a by-product of it.

1.1 From research to influence

Until November 2026, the central aim of H Heuristics was to develop original concepts, publish research, build an online research presence and establish intellectual authority. That work produced a large library of open-access reports and a set of named concepts, from Polycrisis Resilience to Sustainable Convergence (H Heuristics, 2026).

The new aim builds on that foundation. It is to use the research to influence how people, institutions and, over time, governments think about economic development, systemic risk and humanity's long-term prospects. This is more than a change in publishing plans. It is a change in the organization's theory of how it can contribute to the world.

Table 2 The recalibration in one table

	Before November 2026	From November 2026
Core aim	Develop concepts and publish research	Help ideas spread, be tested and be applied
Main output	Reports and essays	Reports, essays, outreach campaigns and partnerships
Who it reaches	Readers who find the work	Priority audiences reached directly, plus the open public
How ideas connect	Separate concepts	One macroeconomic architecture of six pillars
Time horizon	Report by report	A century-scale program with milestones to 2050
Measure of success	Publications and visibility	Citations, teaching, institutional adoption and policy use

Source: H Heuristics.

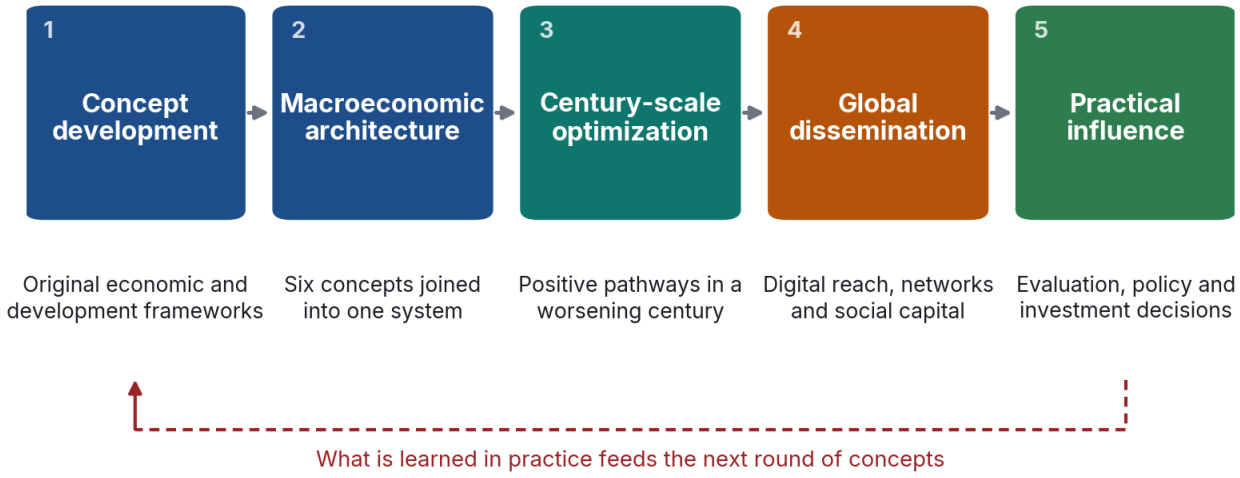
1.2 Five connected developments

Across the November publications, five developments stand out. Each builds on the one before it, and together they form a single strategy.

1. **Concept development:** a coherent set of original economic and development frameworks.

Figure 1 Five connected developments define the recalibration

From concept development to practical influence, with learning feeding back



Source: H Heuristics.

2. **Macroeconomic architecture:** those concepts joined into one way of understanding development, vulnerability and investment (Hughes, 2026a).
3. **Century-scale optimization:** positive development pathways that can improve human outcomes even as systemic risks worsen (Hughes, 2026g).
4. **Global dissemination:** digital distribution, intellectual networks and social capital mobilized to increase adoption (Hughes, 2026h; Hughes, 2026i).
5. **Practical influence:** a move from readership and citations toward institutional evaluation, policy application and investment decisions.

1.3 The new operating model

The result is a clear operating model. H Heuristics **develops** the ideas (original concepts, frameworks and research), **connects** them (a unified architecture), **disseminates** them (digital infrastructure, social capital and institutional outreach) and **facilitates adoption** (academic validation, teaching, policy and practical application). The aim of all four is to **improve humanity's trajectory**: sustainable convergence, reduced vulnerability, better living standards and greater resilience throughout the century.

The most important shift is that intellectual influence is now treated as an instrument of development. Ideas shape how people understand problems; understanding shapes decisions; decisions shape policy and where money goes; and investment shapes infrastructure, technology and human development. An independent organization can contribute to that chain without becoming a government or a multilateral institution.

STATUS

Where things stand today

- The five publications are online and openly available; an email campaign to relevant organizations has begun; new concepts are in development.

SECTION 02

Five Publications, One Strategy

The update was set out in five pieces released together. Each plays a distinct role, and together they cover the ideas, the system that connects them and the plan to share them.

IN BRIEF

- Two research reports supply the ideas and evidence; one initiative report supplies the plan.
- Two essays explain the strategy in plain language for a wider audience.
- Every publication can now be the starting point for an outreach campaign.

2.1 The five pieces

The five publications were released on November 12, 2026. The table lists them with links; the rest of this section explains how they fit together.

Table 3 The November 12, 2026 publications

Publication	Type	Role in the strategy
Century Pathways (HH-2026-61)	Research report, 38 pages	Shows how development can improve lives faster than hazards grow
The H Heuristics Macroeconomic Architecture (HH-2026-62)	Research report, 40 pages	Joins six concepts into one system
Global Concept Adoption Initiative (HH-2026-63)	Initiative report, 39 pages	Sets out how the ideas will spread and be measured
From Ideas to Trajectory	Substack essay	Launches the initiative and the digital strategy
How Established Concepts by H Heuristics...	Substack essay	Describes the concepts as the start of a movement

Sources: (Hughes, 2026g); (Hughes, 2026a); (Hughes, 2026h); (Hughes, 2026i); (Hughes, 2026b).

2.2 How they fit together

Century Pathways answers the question 'what should be done?' It identifies positive development pathways that can improve human outcomes in a century of rising risks, and it proposes a first campaign on clean cooking (Hughes, 2026g). It builds on the companion report *Positive Pathways*, which sets out the development loops that can reduce human exposure to crises (Hughes, 2026j).

The Macroeconomic Architecture answers 'how do the ideas connect?' It brings six concepts together into one framework, so that each is easier to understand in the light of the others (Hughes, 2026a).

The Global Concept Adoption Initiative answers 'how will the ideas reach people who can use them?' It sets out a theory of change, priority audiences, channels, measures and a roadmap to 2050 (Hughes, 2026h).

The two essays carry the story to a wider audience. *From Ideas to Trajectory* explains how digital publishing and social capital let a small, independent organization reach specialists worldwide (Hughes, 2026i). *How Established Concepts by H Heuristics Are Catalyzing a 21st-Century Macroeconomic Movement* presents the concepts, now published and available online, as the foundation of a long-term movement (Hughes, 2026b).

2.3 Every publication as the start of a campaign

One principle ties the five together: every research publication can become the starting point for an influence campaign. In the past, publication was the final step. Now it is the first. Each new report comes with a plain-language summary, a target audience and a single clear ask, such as reading a brief, sharing a critique or discussing an application.

This is a significant improvement over treating publication as the end of the job. It means each report keeps working after it is released, gathering readers, responses and, over time, citations and real-world use.

Table 4 Which publication to share with whom

Audience	Start with	Why
Economists and researchers	Macroeconomic Architecture	Shows the full framework and its open questions
Development institutions	Century Pathways	Offers pathways, data and a concrete first campaign
Governments and policymakers	Century Pathways	Links basic services to safer, more prosperous futures
Educators	Macroeconomic Architecture	A clear structure for teaching six connected ideas
Journalists and the public	From Ideas to Trajectory	A readable account of the mission and the strategy
Partners and supporters	Global Concept Adoption Initiative	The plan, the measures and the roadmap

Source: H Heuristics.

SECTION 03

Century Pathways: Better Lives in a Harder Century

The most hopeful idea in the update is that humanity's hazards can grow while human outcomes still improve, as long as development reduces exposure and vulnerability faster than risks intensify.

IN BRIEF

- About 49% of people live in high-risk countries today, and those countries account for 96% of population growth to 2050.
- At proven peer pace, person-years without five basic services fall from 859 billion (access frozen) to 112 billion over 2026–2100.
- Compounding development, starting with clean cooking, is the proposed engine of progress.

3.1 The outlook paradox

Most discussions of the future assume that worse climate, geopolitical and environmental risks must mean worse lives. Century Pathways asks a different question: can development reduce people's exposure and vulnerability faster than hazards grow? If it can, the century could become more dangerous and better at the same time (Hughes, 2026g). The report calls the strategy for achieving this *Paradoxical Outlook Optimization*.

The stakes are high because of where people will live. About 49% of the world's population lives today in countries rated high-risk by the INFORM Risk Index (European Commission, 2025), and those countries account for about 96% of population growth to 2050. They are home to 61% of the world's children. Sub-Saharan Africa alone grows from about 16% of humanity today to about 34% by 2100 (United Nations, 2024). The future of human welfare depends on how fast these places develop.

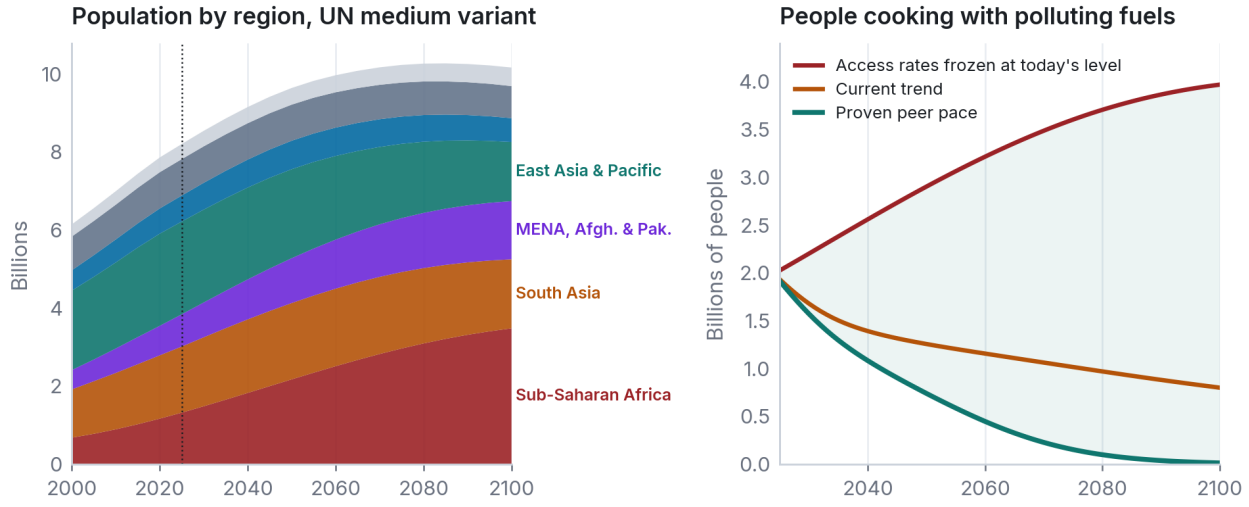
3.2 Compounding development

The report's proposed mechanism is compounding development: investments that reinforce each other, so that each makes the next easier and more valuable. It highlights six areas:

- Electricity and clean cooking.
- Education and digital connectivity.
- Water and sanitation.
- Healthcare and human development.
- Climate-resilient infrastructure.
- Technology diffusion and economic convergence.

Figure 2 Population growth is concentrated where development gaps are largest

World population by region (left) and people cooking with polluting fuels under three benchmark paths (right)



Source: (Hughes, 2026g), from (United Nations, 2024) and (World Bank, 2026).

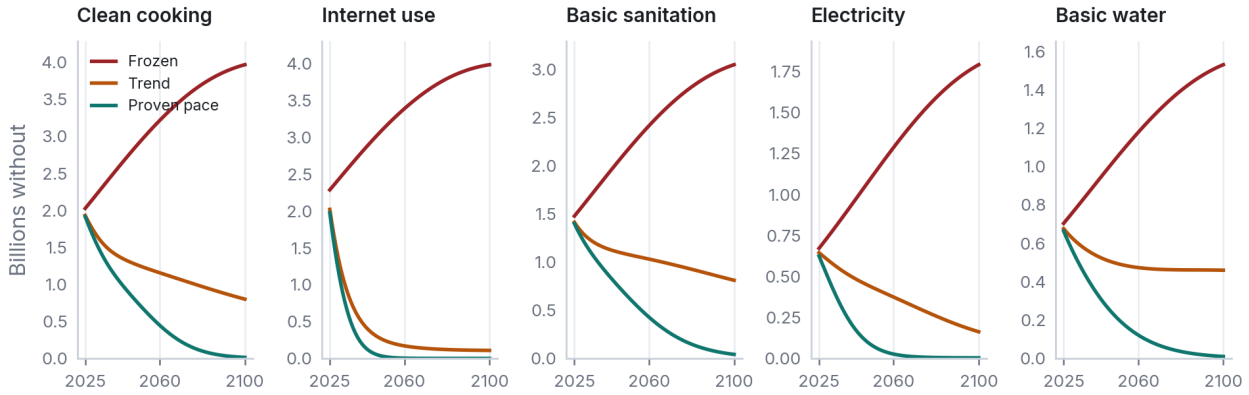
The data support the idea that these foundations pay off widely. Across developing economies, internet use is associated with better results on all five human and environmental measures the report tests, and electricity, water, sanitation and vaccination each on four. In growth tests over 2010–2023, each extra year of schooling was associated with about 0.36 percentage points faster annual growth, and countries with both high internet use and high schooling grew about one percentage point a year faster than those with neither, after allowing for starting income (Hughes, 2026g).

3.3 Three benchmark paths

To show what is at stake, Century Pathways compares three paths for five basic services: electricity, clean cooking, internet use, basic water and basic sanitation. 'Frozen' keeps today's access rates fixed as populations grow. 'Trend' continues recent progress. 'Proven peer pace' assumes countries progress as fast as the better-performing quarter of their peers have already shown is possible.

Figure 3 At proven peer pace, gaps in basic services close for most of the world

People without each service under three paths, 2025–2100 (billions)



Source: (Hughes, 2026g). Benchmark scenarios, not forecasts.

Table 5 Person-years without basic services, 2026–2100

Service	Access frozen	Current trend	Proven peer pace
Clean cooking	240	88	42
Internet use	251	26	13
Basic sanitation	181	77	36
Basic water	89	37	13
Electricity	98	27	8
All five services	859	255	112

Source: (Hughes, 2026g). Billions of person-years; one person-year is one person living one year without the service.

The difference is enormous. Moving from the current trend to proven peer pace would cut time spent without these services by about 143 billion person-years over the century. Clean cooking alone accounts for about 46 billion of that gap, which is one reason the report proposes it as the first campaign: twelve countries hold about 64% of the people still cooking with polluting fuels.

Century Pathways moves H Heuristics beyond describing what is wrong with the world. It begins a structured method for finding where action can produce the greatest long-term improvement.

3.4 Why it matters for the update

Century Pathways gives the outreach effort its most compelling message: a better century is possible, and the tools to reach it are known. That message is hopeful without being naive, because it rests on public data and on pace that countries have already achieved. It also gives every audience something specific. Researchers get testable claims, institutions get pathways and benchmarks, and policymakers get a concrete first campaign on clean cooking that can show results within a few years.

SECTION 04

The Macroeconomic Architecture: Six Connected Ideas

The second pillar of the update solves a different problem: ideas that stand alone have limited power. Joined into one system, six concepts give H Heuristics a clear intellectual identity.

IN BRIEF

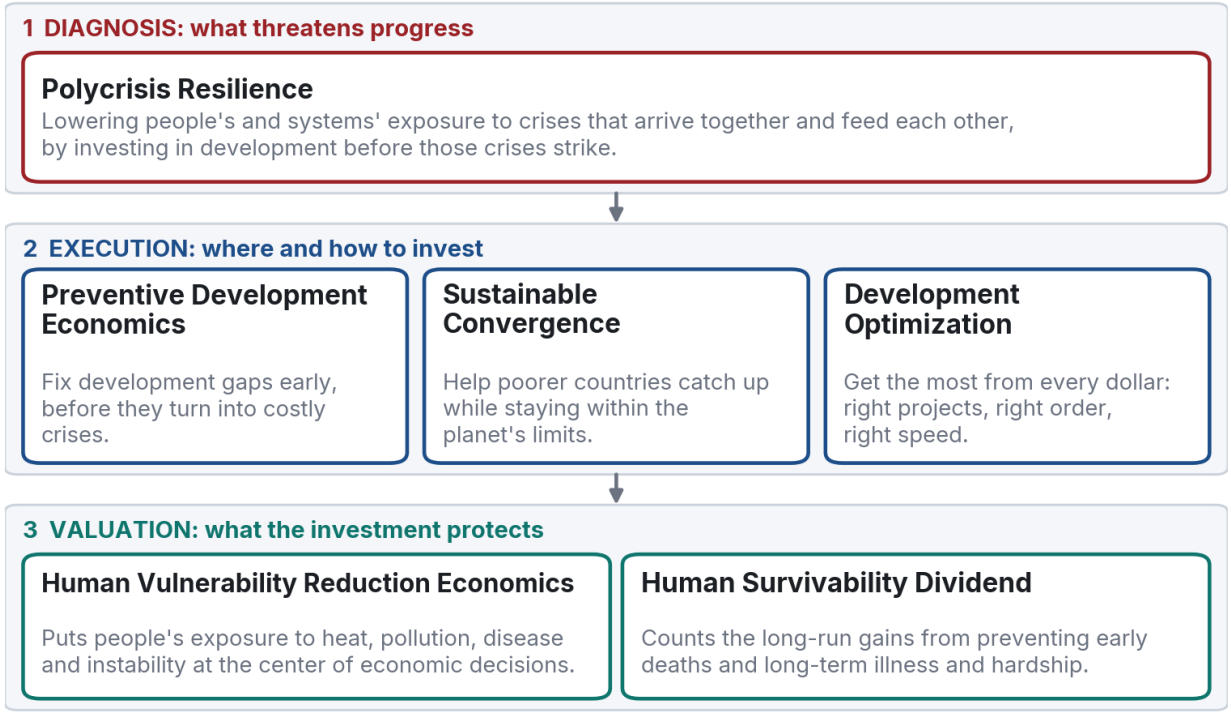
- Six concepts now form one framework running from diagnosis to execution to valuation.
- The framework follows a logical sequence that decision-makers can use step by step.
- It is potentially the organization's most important intellectual asset.

4.1 From separate ideas to one system

H Heuristics has developed several concepts over the past years. Each is useful, but a concept on its own explains only part of a problem. The Macroeconomic Architecture report brings six of them together into one system (Hughes, 2026a). The result is not a publication that covers many development topics, but a recognizable macroeconomic and development framework.

Figure 4 The six pillars run from diagnosing crises to valuing what is protected

The H Heuristics Macroeconomic Architecture in three layers



Finance tools carry the framework into practice: cheaper capital, debt pauses after disasters, resilience-linked bonds

Source: H Heuristics, based on (Hughes, 2026a).

4.2 A step-by-step sequence

Read in order, the pillars give decision-makers a practical sequence. Each step answers a question that leads naturally to the next.

Table 6 The architecture as a sequence of decisions

Step	Pillar	The question it answers
1. Diagnose the risks	Polycrisis Resilience	Which connected crises threaten progress?
2. Identify vulnerabilities	Human Vulnerability Reduction Economics	Who is most exposed, and why?
3. Develop sustainable pathways	Sustainable Convergence	How can poorer countries catch up within the planet's limits?
4. Invest early	Preventive Development Economics	Which gaps, if closed now, prevent the most harm later?
5. Optimize investment	Development Optimization	In what order and at what speed should we invest?
6. Measure the benefits	Human Survivability Dividend	What are the human and economic gains worth?

Source: H Heuristics, based on (Hughes, 2026a).

4.3 Why integration helps adoption

An integrated framework is easier to share than six separate ideas. A reader who meets one concept can be guided to the others, and an institution can adopt one step and add others later. Each pillar also has a natural audience, which multiplies the entry points for outreach.

Independent evidence supports the broad logic of investing early. The World Bank estimates that more resilient infrastructure in developing countries returns about four dollars for each dollar invested (Hallegatte et al., 2019), and the Global Commission on Adaptation found returns of roughly two to ten dollars per dollar across a range of adaptation investments (Global Commission on Adaptation, 2019). The architecture gives these findings a home inside a larger, connected argument.

The framework also points to practical finance tools, such as cheaper capital, debt pauses after disasters and resilience-linked bonds, some building on the Bridgetown Initiative (Bridgetown Initiative, 2024).

ASSESSMENT

The organization's most important intellectual asset

The architecture is potentially the most valuable thing H Heuristics has built. Its value grows as each framework becomes more clearly defined, tested and useful to outside researchers, which is exactly what the adoption initiative encourages.

SECTION 05

The Global Concept Adoption Initiative

The initiative is the missing link between H Heuristics' research and its real-world aims. It turns hoping that good research gets discovered into a deliberate process for putting it in front of people who can evaluate and use it.

IN BRIEF

- A five-stage theory of change runs from developing ideas to improving outcomes.
- Four kinds of participants carry ideas: validators, amplifiers, adopters and appliers.
- Outreach starts with about 100 expert 'anchor' contacts and is already under way.

5.1 A theory of change in five stages

The Global Concept Adoption Initiative sets out how research becomes influence (Hughes, 2026h). It recognizes that intellectual influence takes more than producing research: ideas have to be shared, tested, adopted and applied, and what is learned has to flow back into the next round of work.

Figure 5 Five stages turn intellectual work into better development outcomes

The initiative's theory of change, with signs of success at each stage



Source: (Hughes, 2026h).

1. **Develop:** create original concepts, research frameworks and supporting evidence.
2. **Disseminate:** share the research through digital publishing, social networks, academic contacts and targeted outreach.

3. **Adopt:** encourage independent researchers, educators and institutions to engage with and evaluate the concepts.
4. **Apply:** turn useful frameworks into research, policy, investment and development decisions.
5. **Improve:** bring external criticism, empirical results and practical experience into the next version of the work.

5.2 Four kinds of participants

The initiative identifies eight priority audiences and groups them into four roles. Each role moves ideas forward in a different way.

Table 7 The four roles that carry ideas

Role	Who	What they contribute
Validators	Economists, researchers, universities and educators	Test the ideas and lend them credibility
Amplifiers	Journalists, publishers and social media audiences	Spread the ideas widely and shape public discussion
Adopters	Development institutions and international organizations	Build the ideas into frameworks, guidance and programs
Appliers	Governments, policymakers, business leaders and investors	Put money and policy behind the ideas

Source: (Hughes, 2026h).

5.3 Reach and influence

One of the initiative's most useful distinctions is between reach and influence. Ten thousand readers do not by themselves produce institutional change. A smaller number of serious researchers or development professionals who apply a framework can matter far more. The initiative therefore starts with a network of about 100 anchor contacts: respected people whose work connects closely to one or more of the six pillars.

Around the anchors sit a wider circle reached by campaigns and the open public reached through Substack, search and social media.

5.4 Outreach is under way

The plan is already in motion. The reports are published and available online, each with a permanent identifier that makes it easy to cite, and an email campaign to relevant organizations has begun. The first year focuses on validators, because their engagement gives every later conversation more weight, while also opening conversations with development institutions, governments and international organizations.

Every campaign follows the same simple pattern: a personal note that connects one concept to the reader's own work, a link to the most relevant report, and one small ask. Messages follow anti-spam and data-protection rules in each country reached (Federal Trade Commission, 2023; European Union, 2016; CRTC, 2014), which also makes it more effective.

SECTION 06

From Ideas to Trajectory: Digital Reach and Social Capital

The launch essay makes a powerful point: an independent organization does not need traditional institutional scale to begin generating intellectual influence. Digital tools and trusted relationships can do much of the work.

IN BRIEF

- Open-access publishing, search, social media, targeted email and Substack give near-global reach at low cost.
- A five-stage transmission funnel turns intellectual capital into practical influence.
- Social capital is treated as productive infrastructure, not just an audience.

6.1 Influence without institutional scale

Not long ago, spreading new ideas about development required a university chair, a large think tank or a seat at an international organization. The essay *From Ideas to Trajectory* argues that this is no longer the only route (Hughes, 2026i). H Heuristics can draw on assets that cost little but reach far:

- Open-access research infrastructure, with reports free to read and cite.
- Search engine discoverability, so people looking for these topics can find the work.
- Social media distribution.
- Targeted academic and institutional email campaigns.
- Substack and other publishing networks.
- Existing relationships and social capital.

Free access matters: large studies find that open-access research tends to be cited more than research behind paywalls (Piwowar et al., 2018).

6.2 The transmission funnel

The essay describes the strategy as a transmission funnel. Each stage is narrower than the one before, but more valuable: fewer people engage deeply than see a post, yet those few are the ones who cite, teach and apply the work.

6.3 The right message for each audience

The essay rightly stresses that different audiences need different messages. An economist needs method; an investor needs the logic of where capital should go; a policymaker needs clear implications for action.

Figure 6 A transmission funnel turns intellectual capital into practical influence

The digital economy transmission funnel



Source: H Heuristics, based on (Hughes, 2026i).

Table 8 Tailoring the message

Audience	What they need	What H Heuristics offers
Economists and researchers	Methods, data and open questions	Reports with stated methods, DOIs and data sources
Educators	Clear structure and teaching materials	The six-pillar framework and plain-language summaries
Investors	The logic of capital allocation and returns	The dual-return case for preventive investment
Policymakers	Practical options and implications	Short briefs drawn from Century Pathways
Journalists	A clear story and reliable facts	Essays, charts and an expert to talk to
Institutional leaders	Fit with existing mandates	How the framework links to resilience and climate goals

Source: H Heuristics, based on (Hughes, 2026i; Hughes, 2026h).

6.4 Social capital as productive infrastructure

Perhaps the essay's most important idea is that social capital, meaning trusted relationships and networks, is productive infrastructure rather than just an audience. Research on how innovations spread has long found that people adopt new ideas mainly because someone they trust has done so first (Rogers, 2003). A recommendation from a respected colleague carries far more weight than any advertisement.

This connects H Heuristics' social media and networking with its research mission: digital reach becomes a way to introduce ideas into wider intellectual and institutional networks.

SECTION 07

A Positive Feedback Loop

Published research, outreach, engagement and feedback form a self-reinforcing loop. Each turn makes the next one easier, which is why influence can grow faster over time.

IN BRIEF

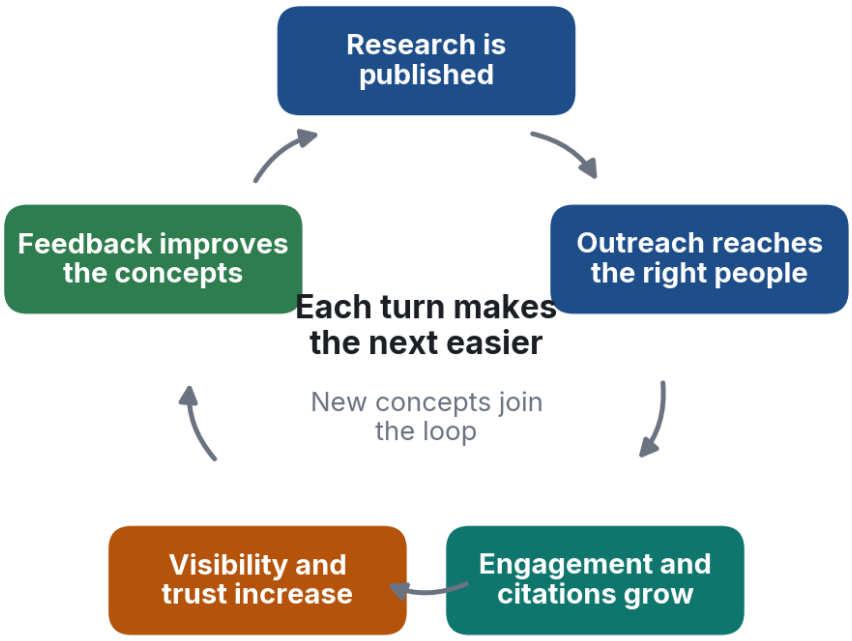
- The loop has five steps: publish, reach, engage, gain visibility, improve.
- Success breeds success: cited work attracts more attention and more citations.
- New concepts join the loop, so it keeps gaining energy.

7.1 How the loop works

The strategy can be pictured as a win-win loop. Research is published; outreach puts it in front of the right people; some of them engage and cite it; that engagement raises visibility and trust; and feedback improves the concepts, which makes the next round of outreach more effective.

Figure 7 Each turn of the loop makes the next one easier

The positive feedback loop between research, outreach and adoption



Source: H Heuristics.

1. **Research is published.** It gives people something concrete and citable to engage with.
2. **Outreach reaches the right people.** Some read, reply, share or test the work.

3. **Engagement and citations grow.** A citation, seminar or mention brings in readers who were never contacted directly.
4. **Visibility and trust increase.** Each new message can point to a growing body of outside engagement.
5. **Feedback improves the concepts.** Critique and real-world use show what works, so the next report is stronger and easier to share.

7.2 Why success breeds success

The loop is powered by a well-documented pattern. The sociologist Robert Merton observed that work which is already recognized tends to attract more attention and more credit, which he called the 'Matthew effect' (Merton, 1968). In practice, this means the early citations are the hardest to earn and the most valuable: each one makes the next more likely.

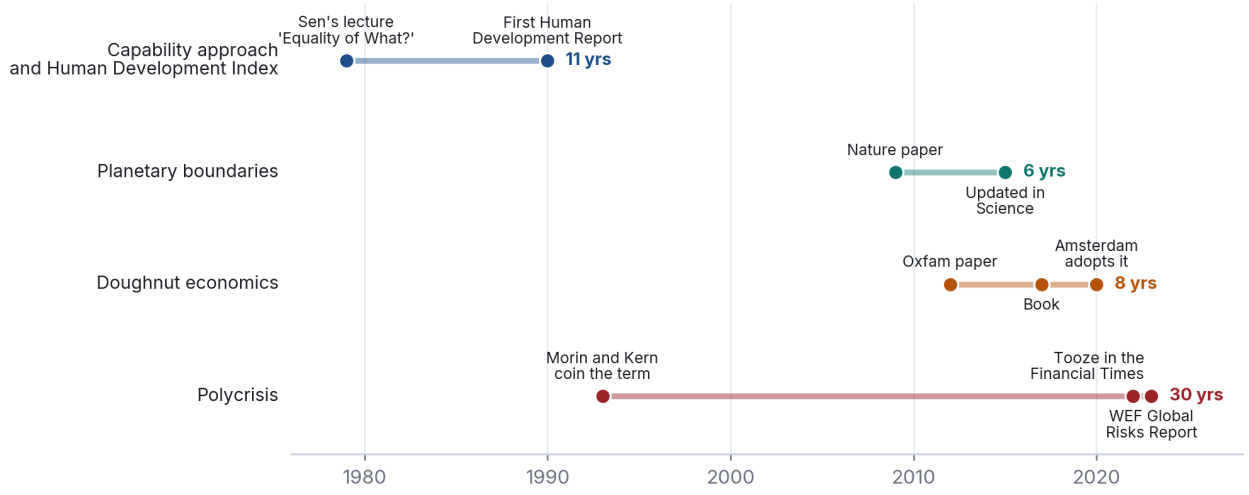
This is also why the projections in Section 8 rise slowly at first and then accelerate. In the early years the loop is driven mostly by H Heuristics' own outreach. Once others start citing and sharing the work, they keep the loop turning, and growth picks up.

7.3 The loop has worked before

Influential ideas in development and sustainability have followed this pattern. In each case below, publication led to engagement, engagement to wider use, and wider use to institutional adoption.

Figure 8 Influential concepts took 6 to 30 years to reach wide institutional use

Selected milestones from first statement to wide use



Sources: (Sen, 1980); (UNDP, 1990); (Rockström et al., 2009); (Steffen et al., 2015); (Raworth, 2012); (Raworth, 2017); (The Amsterdammer, 2020); (Morin and Kern, 1999); (Tooze, 2022); (World Economic Forum, 2023).

Amartya Sen's capability approach led, eleven years after a 1979 lecture, to the first Human Development Report (Sen, 1980; UNDP, 1990). The planetary boundaries framework moved from a 2009 paper to wide use in research, business and government (Rockström et al., 2009; Steffen et al., 2015). Doughnut economics went from a 2012 discussion paper to a city's official policy frame-

work in 2020 (Raworth, 2012; The Amsterdammer, 2020). Each began with a clear idea, gathered champions and grew through a loop much like this one.

7.4 What keeps the loop turning

- **Steady, personal outreach** and quick follow-up when someone engages. The first few dozen serious responders matter more than any number of messages sent.
- **Clear, well-defined concepts** that are easy to explain, test and cite.
- **Open access and open methods**, so others can check and build on the work.
- **Credibility**: honest estimates and openness to critique encourage people to put their own names next to the work.
- **A steady flow of new concepts**, which gives the loop fresh material and new entry points.

7.5 Early signs the loop is turning

The loop shows itself well before citations add up. These early signals, tracked from the first campaign, show that it has started to turn:

- **Replies with substance:** experts who respond with questions, comments or critiques.
- **Forwarding:** recipients who pass a report to colleagues, students or their own networks.
- **Invitations:** requests to present, contribute a guest piece or join a discussion.
- **First independent citations:** working papers, theses and reports by others that build on the work.
- **Return visitors:** readers who come back for new reports and subscribe to updates.

Each of these signals is worth celebrating and following up, because each is a person who may carry the ideas further.

SECTION 08

Citations: From Hundreds to Thousands

Using a standard model of how ideas spread, the central scenario reaches about 140 independent citations by 2030, 670 by 2035 and 2,900 by 2050.

IN BRIEF

- The range by 2050 runs from about 1,100 (low) to 7,900 (high).
- Without active outreach the same model gives about 500 by 2050; the initiative brings the snowball forward by a decade or more.
- These are general estimates built on stated assumptions; actual results may vary.

8.1 Why citations matter

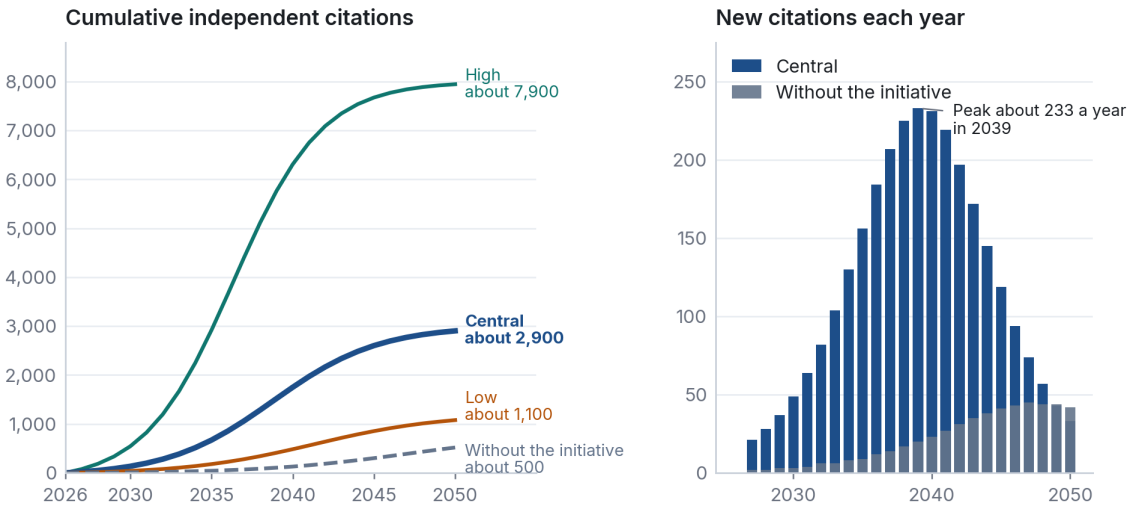
A citation is a public signal that someone outside H Heuristics found the work useful enough to build on. It is the first point in the chain where ideas start to travel on their own. Citations also feed every later step: they lead to teaching, to mentions in policy papers and to institutional interest. For this reason the update uses independent citations as its main early measure of success.

8.2 How the estimates are made

New ideas, like new products, tend to spread along an S-shaped curve: slowly at first, then faster as early adopters influence others, then more slowly as most potential adopters have been reached. The Bass model captures this with three numbers: the potential number of adopters, the push from outreach and the pull of word of mouth (Bass, 1969). The estimates here come from the model set out in the Global Concept Adoption Initiative (Hughes, 2026h).

Figure 9 Citations build to about 670 by 2035 and 2,900 by 2050 in the central scenario

Independent citing works, cumulative (left) and per year (right), 2026–2050



Source: H Heuristics calculations using the Bass diffusion model (Bass, 1969; Hughes, 2026h).

In the central scenario, growth peaks around 2039 at roughly 233 new citing works a year. By 2035 the initiative's outreach has produced about 16 times as many citations as publishing alone would, because it starts the snowball sooner.

Table 9 Projected independent citations

Scenario	2027	2030	2035	2040	2050
Without the initiative	2	10	43	129	519
Low	7	40	179	484	1,079
Central	21	135	671	1,751	2,904
High	77	544	2,920	6,310	7,947

Source: H Heuristics calculations. General estimates; read them as rounded to the nearest ten or hundred.

8.3 Outreach buys time; quality sets the destination

Changing one assumption at a time shows what matters most. Halving the push from outreach lowers the 2035 figure from about 670 to 370, but barely changes 2050. Raising the potential by half, which reflects how useful and convincing the ideas are, lifts 2050 from about 2,900 to 4,400. The lesson is encouraging: outreach brings results forward, and every improvement in the quality and usefulness of the concepts raises how far they can go.

8.4 Readers

Readership follows the same pattern from a larger base. In the central scenario, about 27,000 people will have read an H Heuristics report by 2030, about 83,000 by 2035 and about 148,000 by 2050, with a range for 2050 of about 58,000 to 399,000. Readers are where the chain begins: some become citers, teachers, advocates or decision-makers.

SECTION 09

From Citations to Societal and Institutional Influence

Citations are only the beginning. As ideas are cited, they enter classrooms, public debate and policy papers, and from there they reach the institutions that shape investment and policy.

IN BRIEF

- By 2050 the central scenario points to about 48 university courses, 116 policy and institutional documents and 39 engaged institutions.
- Research usually shapes policy gradually, by changing how people think, and is used when a window of opportunity opens.
- Each step in the chain multiplies the reach of the one before.

9.1 The impact chain

The update describes a chain that runs from research to better lives. Each link widens the circle of people the ideas reach, and each brings the ideas closer to real decisions. Figure 10 shows the chain with the central-scenario estimates for 2035 and 2050.

Figure 10 Each link in the chain carries ideas closer to real decisions

The impact chain from research to better outcomes, with central-scenario estimates



Source: H Heuristics calculations. Central scenario; general estimates.

9.2 Societal influence

Societal influence means ideas becoming part of how people talk and think. It shows up in teaching, journalism, public discussion and the vocabulary that leaders use. The history of the word 'polycrisis' shows how this works: a term that existed for decades became part of everyday debate once a widely read historian and then the World Economic Forum used it to make sense of events (Tooze, 2022; World Economic Forum, 2023).

Teaching is one of the strongest forms of societal influence, because each course passes ideas to a new generation of researchers and professionals. The central scenario points to about 11 university courses using an H Heuristics concept by 2035 and about 48 by 2050.

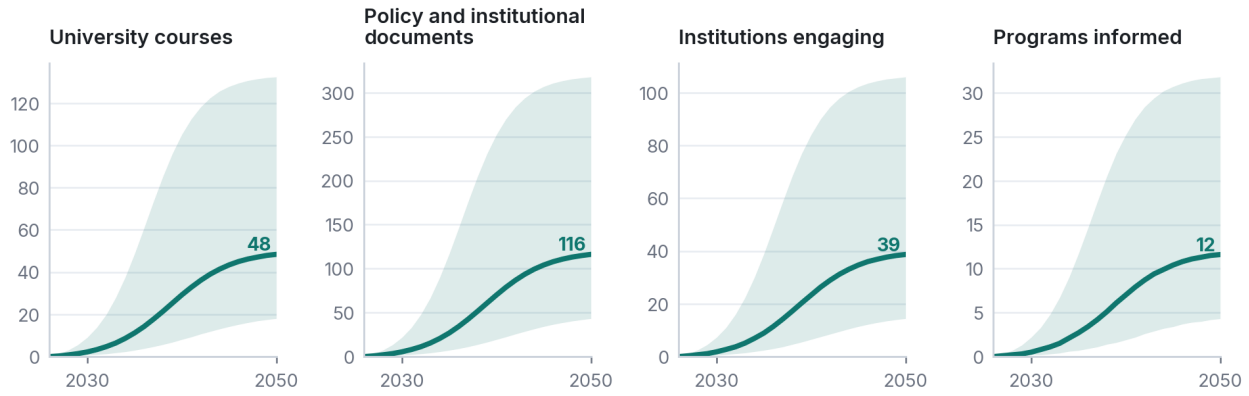
9.3 Institutional adoption and policy use

Research rarely changes policy through a single study. The sociologist Carol Weiss found that it usually works through 'enlightenment': ideas gradually shape how officials and advisers see a problem, until new choices seem natural (Weiss, 1979). The political scientist John Kingdon showed that change often comes when a problem, a solution and political will align, and that well-developed, familiar ideas are the ones picked up at that moment (Kingdon, 1984).

This is why institutional adoption follows citations. As more researchers use the concepts, they appear in working papers, think-tank reports and policy documents, and development institutions begin to evaluate them. Policy and institutional documents that draw on the work can be tracked with open tools such as Overton (Overton, 2026).

Figure 11 Teaching, policy use and institutional engagement rise with citations

Cumulative indicators of wider influence, 2026–2050



Source: H Heuristics calculations. Line: central scenario; band: low to high.

These numbers may look modest next to the citation counts, but each one carries weight. A single policy framework or development program can affect budgets worth millions of dollars and the lives of millions of people. The value of the chain lies less in its size than in where it leads.

9.4 What institutional adoption can look like

Institutional adoption takes many forms, and most begin small. Watching for them helps show that ideas are moving from discussion into practice:

Table 10 Wider influence by scenario

Indicator	Low 2035	Central 2035	High 2035	Low 2050	Central 2050	High 2050
University courses	3	11	49	18	48	132
Policy and institutional documents	7	27	117	43	116	318
Institutions engaging	2	9	39	14	39	106
Programs informed	1	3	12	4	12	32

Source: H Heuristics calculations. Assumed ratios: one course per 60 citations, one document per 25, one institution per 75, one program per 250.

- **Appraisal methods:** a development bank or ministry adds prevention benefits or a vulnerability screen to how it judges projects.
- **Strategy documents:** a national or city plan uses a concept such as Polycrisis Resilience to frame its priorities.
- **Program design:** an investment program sequences basic services in the order a pathway suggests.
- **Training:** an institution includes the framework in staff courses or guidance notes.
- **Partnerships:** a university, think tank or agency works with H Heuristics on joint research or a pilot.

Each of these steps can start with a single conversation. That is why the outreach now under way matters so much: it opens the doors through which ideas reach the people and institutions able to act on them. Over years, many small adoptions add up to a real change in how development decisions are made.

SECTION 10

From Influence to Outcomes: Sustainable Convergence

The final link in the chain is the one that matters most: better development outcomes. When ideas help shift policy and investment, even small changes in the pace of progress add up to very large human gains.

IN BRIEF

- The gap between the current trend and proven peer pace is about 143 billion person-years without basic services over 2026–2100.
- If the movement H Heuristics contributes to helps close just 1% of that gap, that is about 1.4 billion person-years of services gained.
- Prevention and resilience investments typically return several dollars for each dollar spent.

10.1 What sustainable convergence means

Sustainable convergence means poorer countries catching up with richer ones in income, health, education and technology, while staying within the planet's limits. It is the central hope of the H Heuristics framework: a century in which living standards rise fastest where they are lowest today, and in which people are better protected from the crises that a changing world will bring (Hughes, 2026a; Hughes, 2026e).

Better outcomes come from many sources: governments, businesses, communities, international institutions and countless individual decisions. Ideas do not build power lines or clinics. But ideas shape which power lines and clinics get built, where, and how soon. That is the contribution H Heuristics aims to make.

10.2 Why the payoff can be large

Investment in prevention and resilience has strong returns. The World Bank estimates about four dollars of benefit for each dollar invested in more resilient infrastructure in developing countries (Hallegatte et al., 2019). The Global Commission on Adaptation found returns of roughly two to ten dollars per dollar across a range of adaptation investments (Global Commission on Adaptation, 2019). In the United States, the National Institute of Building Sciences found that natural hazard mitigation saves about six dollars for every dollar spent (Multihazard Mitigation Council, 2019).

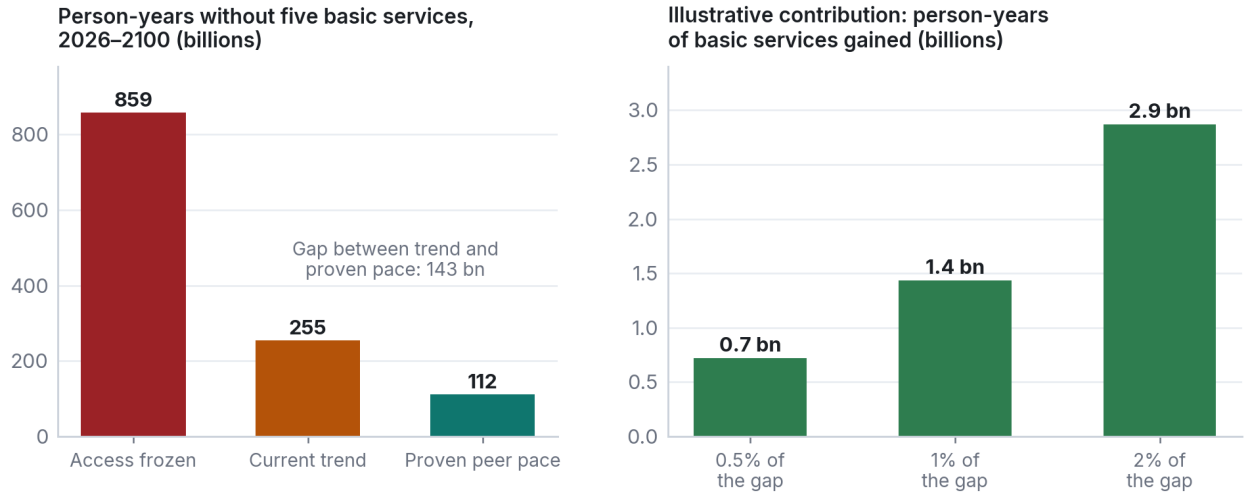
When returns are this high, even a small shift in how decisions are made produces large gains. Better ideas about what to fund first, how to count the benefits and how to sequence investment can therefore have an outsized effect.

10.3 An illustrative contribution

Century Pathways offers a way to picture the potential. Over 2026–2100, the gap between the current trend and proven peer pace for five basic services is about 143 billion person-years (Hughes, 2026g). H Heuristics would be one contributor among many to closing that gap. But suppose the broader movement it helps to build moves outcomes just a small step from the trend toward proven pace.

Figure 12 Closing even 1% of the gap would mean about 1.4 billion person-years of basic services gained

Person-years without five basic services by path (left) and illustrative gains (right)



Sources: (Hughes, 2026g); H Heuristics calculations. Illustrative shares, not estimates of attribution.

Table 11 Illustrative gains in basic services, 2026–2100

Share of the gap closed	All five services	Clean cooking alone
0.5%	0.72 billion person-years	0.23 billion person-years
1%	1.43 billion person-years	0.46 billion person-years
2%	2.87 billion person-years	0.92 billion person-years

Source: H Heuristics calculations from (Hughes, 2026g).

Each of those person-years is a real person living a year with electricity, clean cooking, safe water, sanitation or internet access that they would not otherwise have had. A 1% contribution to clean cooking alone would mean about 0.46 billion person-years free from smoky kitchens, one of the largest causes of illness from household air pollution.

10.4 Lower vulnerability and greater resilience

The same investments that improve daily life also protect people when crises strike. A household with reliable power, clean water, a nearby clinic and a phone is far better placed to cope with a heatwave, a flood or a price shock. This is the dual return at the heart of Preventive Development Economics, and the reason the framework connects naturally with the Sendai Framework for disaster risk reduction and the Sustainable Development Goals (UNDRR, 2015; United Nations, 2015).

SECTION 11

Continuing to Develop New Concepts

Dissemination does not replace research. H Heuristics will keep developing new concepts and deepening existing ones, so the feedback loop always has fresh, stronger material to share.

IN BRIEF

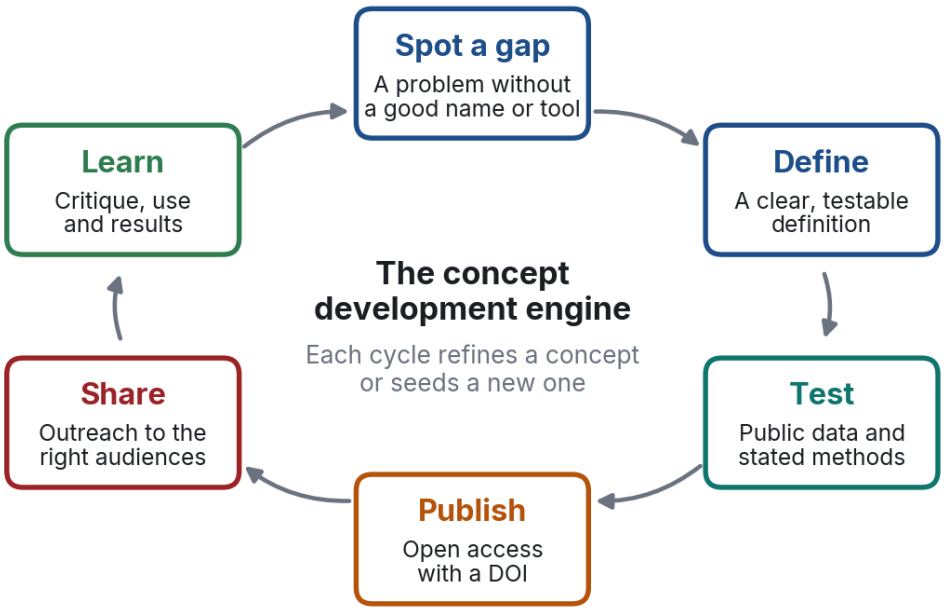
- A six-step concept development engine turns gaps into tested, published and shared ideas.
- Feedback from outreach shapes which concepts come next.
- New concepts build on the six-pillar architecture, keeping the framework coherent as it grows.

11.1 The concept development engine

New concepts are the fuel of the whole strategy. Each one opens new conversations, reaches new audiences and gives researchers new questions to test. H Heuristics develops concepts through a repeating cycle: spot a gap, define it clearly, test it with public data, publish it openly, share it with the right people and learn from the response.

Figure 13 Each cycle refines a concept or seeds a new one

The concept development engine



Source: H Heuristics.

11.2 How outreach shapes new research

The adoption initiative and the research program now feed each other. Questions that experts ask, gaps they point out and applications they try all become material for new work. If many readers ask how to measure a concept, the next report can supply a method. If practitioners try an idea in a new setting, the next report can learn from what happened.

This makes new concepts more useful from the start, because they answer questions real people are already asking. It also deepens relationships: people who see their feedback reflected in new work are more likely to stay engaged.

11.3 Directions for new work

Building on the November publications, several directions stand out for the next phase of concept development.

Table 12 Directions for the next phase of research

Direction	What it would add	Builds on
The Century Ledger	An annual count of world progress on basic services and of the program's own influence	Century Pathways
Clean cooking campaign evidence	Country-level pathways and options for the first campaign	Century Pathways, Preventive Development Economics
Methods notes	Open data, code and assumptions behind each estimate	All six pillars
Country pathway profiles	Short profiles of how specific countries can speed up basic services	Sustainable Convergence, Development Optimization
Measuring the dividend	Practical methods for valuing lives and health protected	Human Survivability Dividend
Plain-language editions	Short guides and translations for teaching and public use	The full framework

Source: H Heuristics.

11.4 Principles for new concepts

- **Fit the architecture.** New concepts should connect clearly to one or more of the six pillars, so the framework stays coherent as it grows.
- **Define clearly.** Each concept gets a short, precise definition and a statement of what it adds to existing ideas.
- **Test with public data.** Wherever possible, concepts are tested against open data with stated methods.
- **Publish openly.** Every report is free to read, with a permanent identifier and a suggested citation.
- **Share with purpose.** Each new publication comes with a target audience and a clear ask.

SECTION 12

The Road Ahead: The Execution Era

November 12, 2026 marks the beginning of H Heuristics' execution era. The foundation is laid; the next milestones are about people outside the organization engaging with, testing, citing and applying the work.

IN BRIEF

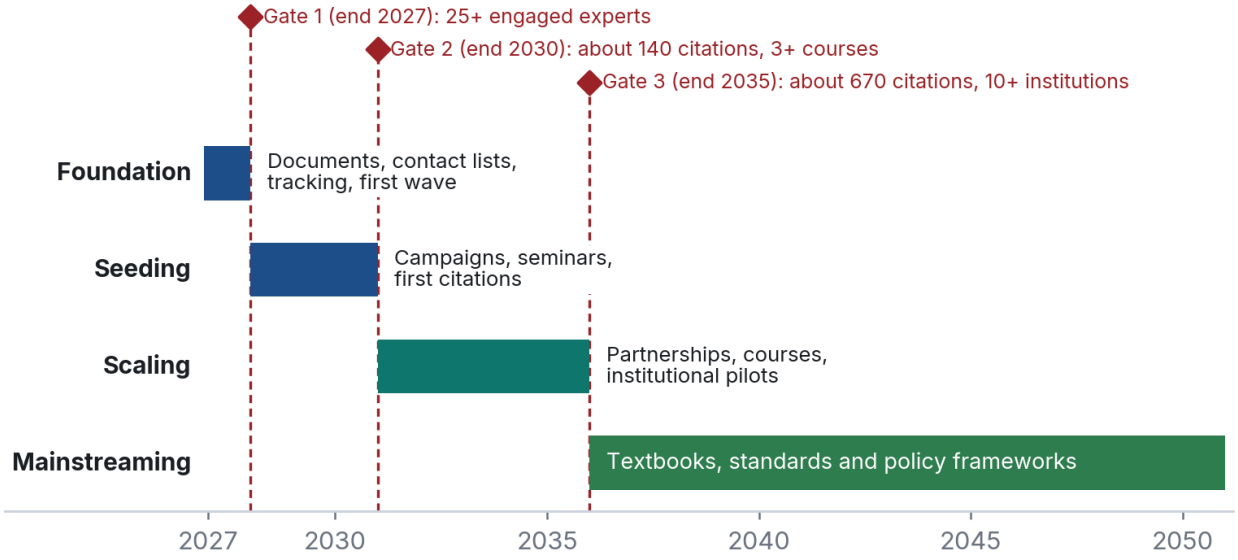
- Four phases run from foundation (2026–2027) to mainstreaming (2036–2050).
- Central-scenario milestones: about 140 citations by 2030, 670 by 2035 and 2,900 by 2050.
- Progress will be tracked and reported openly every year.

12.1 Four phases to 2050

The roadmap from the Global Concept Adoption Initiative sets out four phases, each opened by a review gate (Hughes, 2026h). The foundation phase is already under way.

Figure 14 Four phases, each opened by a review gate

Initiative phases and review gates, 2026–2050



Source: (Hughes, 2026h). Gate targets use the central scenario.

12.2 Milestones along the chain

The milestones below combine the citation estimates, the wider influence chain and the development goals the work is meant to serve.

Table 13 Milestones in the central scenario

Year	Citations	Wider influence	Development focus
2027	~21	First responses and engaged experts; first critiques	First campaign: clean cooking
2030	~140	~2 courses, ~5 policy documents	Country pathway profiles in use
2035	~670	~11 courses, ~27 documents, ~9 institutions	Concepts in institutional appraisal methods
2040	~1,800	~29 courses, ~70 documents, ~23 institutions	Programs informed by the framework
2050	~2,900	~48 courses, ~116 documents, ~39 institutions	Faster sustainable convergence

Source: H Heuristics calculations. General estimates; actual results may vary.

12.3 The next twelve months

- **Continue the email campaign** to relevant organizations, following up personally with everyone who responds.
- **Build the anchor network** of about 100 expert contacts closely connected to the six pillars.
- **Launch the clean cooking campaign** from Century Pathways as the first focused effort.
- **Publish plain-language briefs** for each pillar to make the ideas easier to share and teach.
- **Track and report** replies, readers, citations and policy mentions, and publish the first annual progress report.
- **Keep developing new concepts**, guided by what the outreach reveals.

12.4 Commitments that build trust

Trust is what keeps the feedback loop turning. H Heuristics will describe its concepts as proposed frameworks offered for testing, present projections as general estimates, publish its methods, welcome critique and count only independent citations as adoption. These commitments help others engage with confidence.

12.5 Conclusion

The November 2026 update is a turning point. H Heuristics has built a coherent set of ideas, joined them into one architecture, identified pathways to a better century and begun sharing them. Hundreds of citations within a decade and thousands within a generation can lead to teaching, institutional adoption and policy use. If those ideas help speed progress even slightly, the gains will be measured in billions of person-years of better lives.

> *"Ideas can influence decisions. Decisions can direct investment. Investment can change development trajectories."*
>
> Guiding principle of the Global Concept Adoption Initiative

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About H Heuristics. H Heuristics is an independent research practice publishing open-access work on development, resilience, the clean transition and interconnected global risks at researchreports.hheuristics.com.

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