

*Climate research
and science-
policy: What is
ethical practice?
How do we get
there ?*



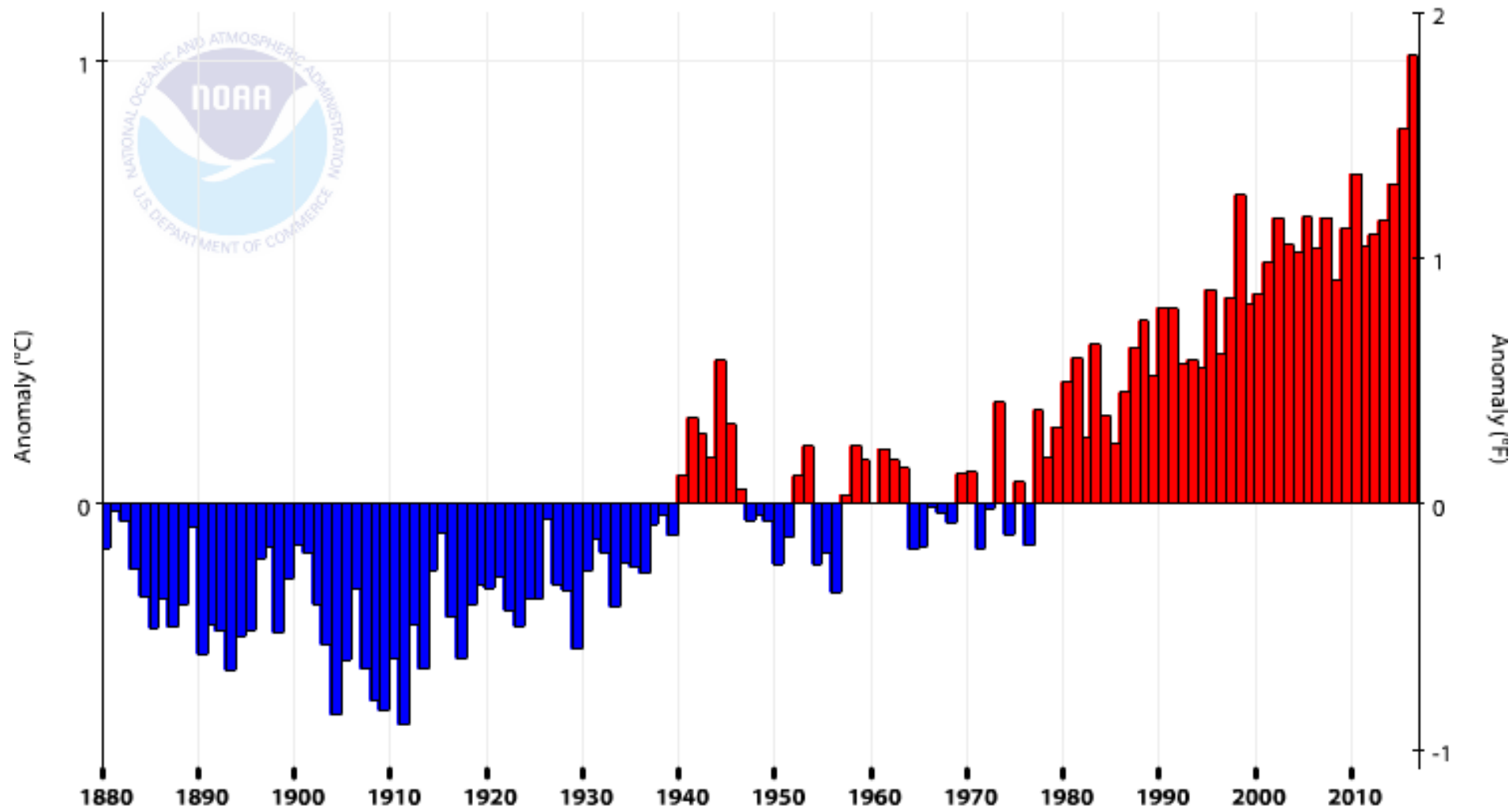
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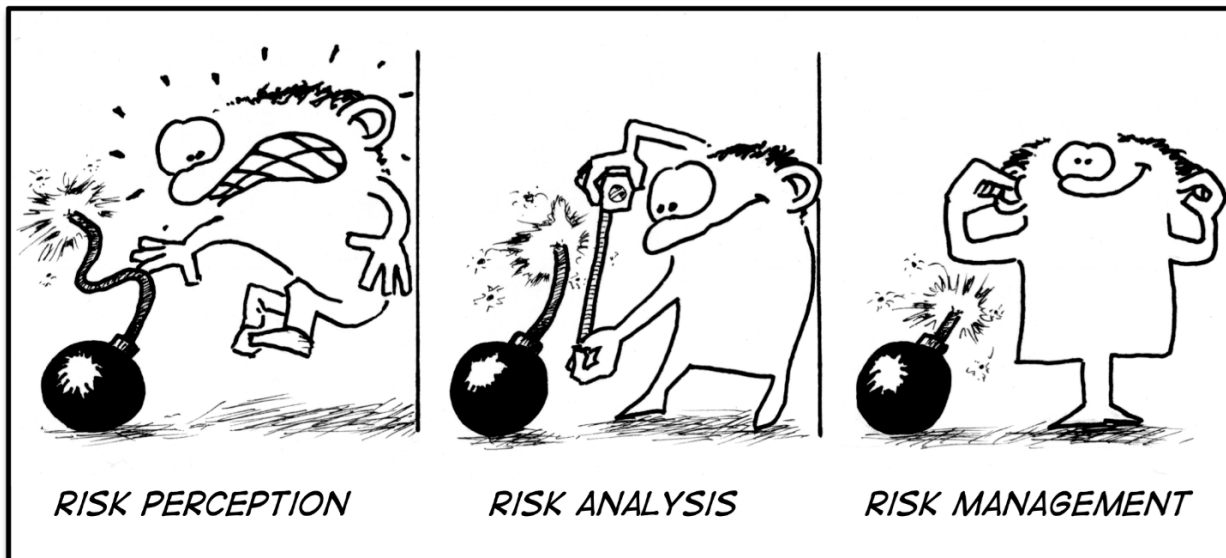
Global change is accelerating

Global Land and Ocean Temperature Anomalies, January-August



Climate adaptation

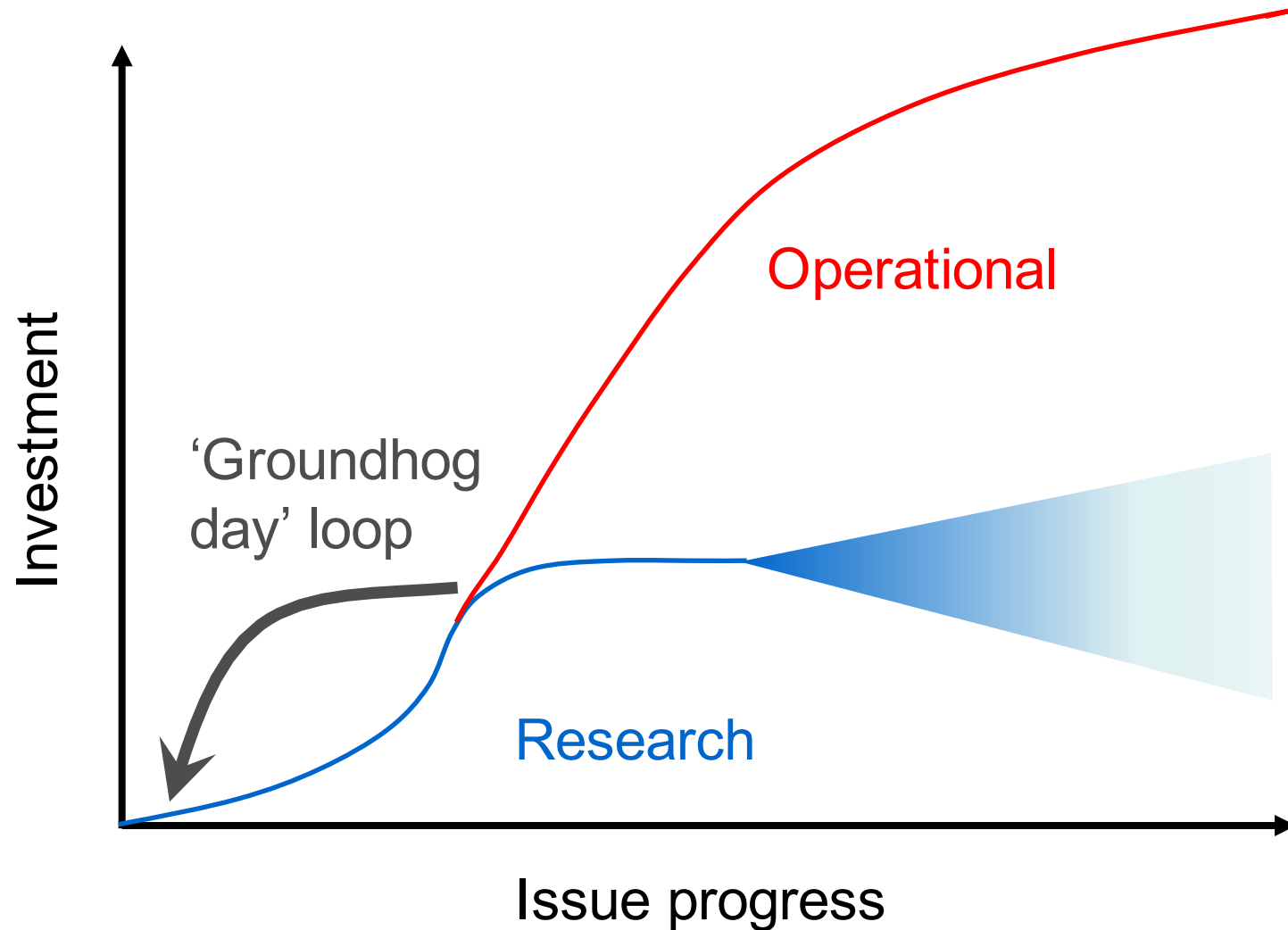
- Not matching inputs, management or strategy to changing climate, results in either underperformance and/or increasing risk
- This will require transitions in both the systems
 - requiring user involvement in co-design and implementation – resulting in different decisions
- And in the science from biophysical to more social, from problem identification to solution design and implementation



Climate adaptation frontiers

- Clarity about uncertainties, transparency and accountability about the choices of what science is being used and its funding and communication
- A morphing from a research to an operational mode with the goal of informed and just adaptation
- In this lecture we are not covering the broader ethics of global response nor the issue of threatening behaviour towards researchers and decision-makers nor cheating behaviour
- Addressing it through the lens of professional ethics

'Ideal' progress in climate adaptation



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- Addressing it through the lens of professional ethics: guiding ethical principles or frameworks adhered to in the service of human needs
 - medical analogy

Changing roles for researchers

- Recently, scientists under increasing societal and political pressure to engage more actively with decision-makers
 - often reflected by the researchers themselves
- UN State of the Planet Declaration 2012: *'We must develop a new strategy for creating and rapidly translating knowledge into action, which will form part of a new contract between science and society'*.
- Tension between metrics of science outputs and outcomes
- Inherently nascent nature of cutting-edge science which is often preferred
- High levels of uncertainty associated with complex issues
- Recognised science-action gap, supply-demand gap, supply-need gaps

Decision-maker interaction

- The general principles of interaction between science and users to achieve outcomes are relatively well understood
- The challenge is often in the doing



Highly variable advice

- Variable and often conflicting advice about adaptation
 - e.g. from ‘no action’ to ‘complete transformation’
- Forces the decision-maker to assess and integrate the options
- This can increase the level of risk to decision-makers seeking to make informed adaptation choices about the full range of relevant options and their consequences



Advice based on researcher not need

- Adaptation decisions made on the basis of **who** is providing the expert advice rather than specific circumstances of the end-user
- Seems that a semi-random action (who is the first point of contact) determines the advice e.g.
 - climate scientist (improved downscaled climate info)
 - agronomist (incremental change to existing system)
 - economist (manage RoI, equity, business flexibility)
- Researchers operating in ways that are not necessarily in the interests of their decision-maker partners
 - advocating particular approaches
- Erodes trust

Narrow, incomplete and confusing

- Lack of unbiased and comprehensive communication of the diverse options, their implementation path and the benefits/risks associated with them
- Often not scaleable



Mixing research with operational

- Lack of clarity between research and operational aspects
- Representation of research as suitable for operational decision-making (robustness, fit-for-purpose)
- Misrepresentation of research results as uncontroversial

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Privileged position of science

- Lack of awareness of the different roles and responsibilities
- The decision-maker takes on both the benefit and the risks
- They need to integrate climate with other issues
- Science cannot fully resolve the complexities of the decision process which include personal, social, political, economic, and institutional factors that affect such processes: the 'right thing to do' cannot be resolved by science alone
 - indeed, researchers are often minority knowledge holders and need to learn to respect this
- Recommendations must be aligned with the specific context, needs, values and aspirations of the decision-maker **not** the researcher

- Potential conflicts of interest (e.g. disciplinary bias, researchers advocating their own research, preferencing career metrics over value to decision-makers)
- Potentially misleading statements about ability/intent
- Institutionalising a hard rigour vs relevance trade-off
- Mechanical adherence to quantitative modelling and focus on the explicit rather than the tacit
- Preference for prediction rather than developing useful options
- Lack of incentive to maintain relationships

Ethics, trustworthiness, engagement

- Evidence or perceptions of (un)ethical behaviour feed directly into perceptions of trustworthiness

Trustworthiness

Ability

Commitment to
joint outcomes

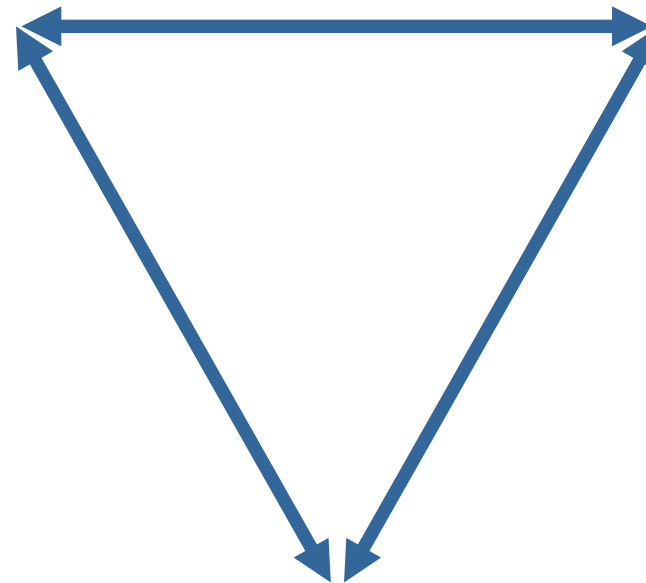
Integrity

Knowledge-action

Relevance

Credibility

Legitimacy



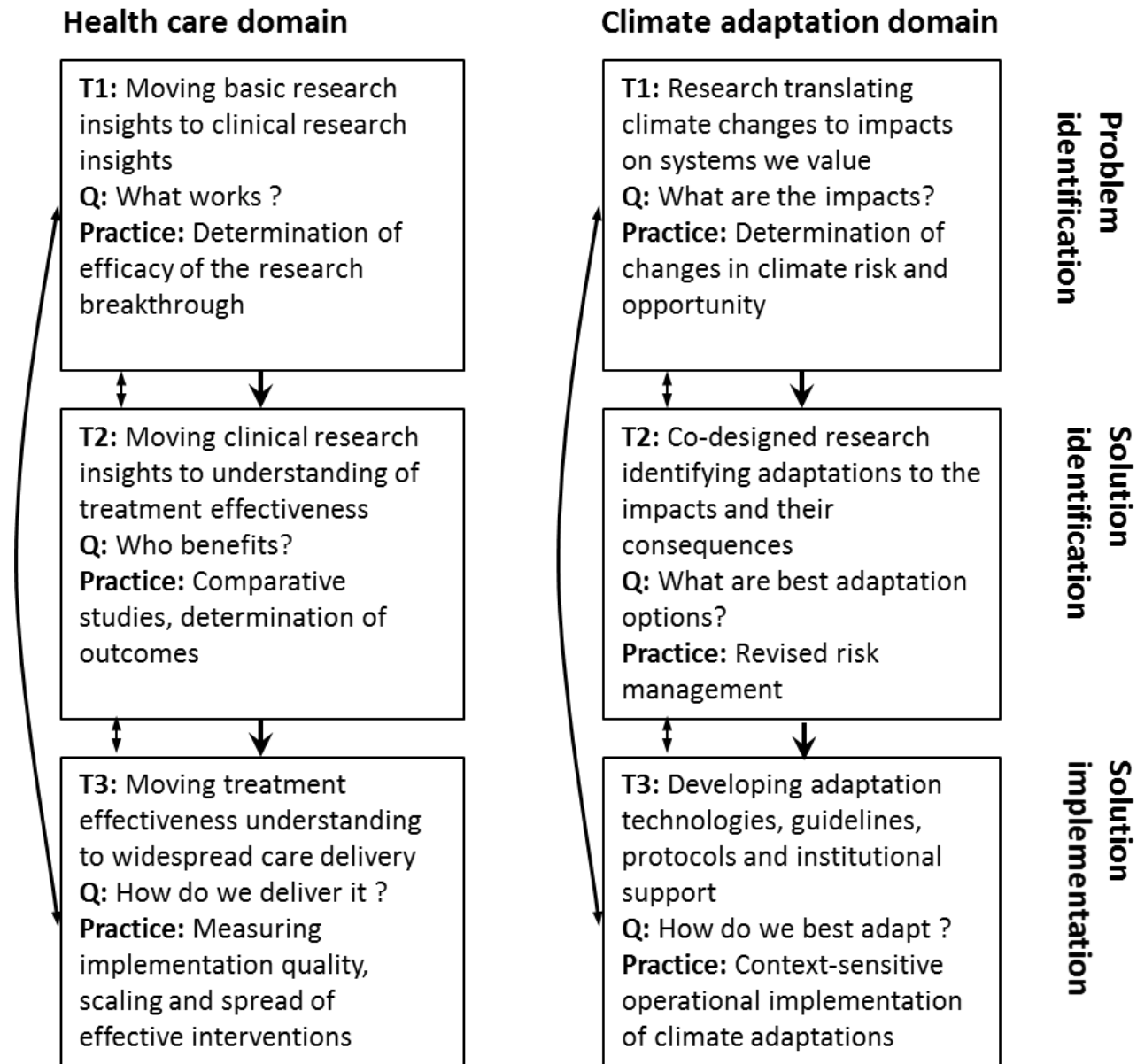
Ethical approaches

Why a medical system analogy ?

- Advice has a direct impact on lives and livelihoods
- Recognised that research results in development but there can be challenges into translating this into improved health outcomes
- Frontline practitioners work with patients on diagnosis and co-management options in ways that are both effective and ethical



From research to an operational system



Ethics: an approach

- Normalise the adaptation transition idea, mainstream it into governance and discourse, make it easy, reward it
- Consistently emphasise that the type of science needed should co-evolve with the issues
 - that there are ways to navigate science supply-side issues
- Build capacity in the decision-maker community including their understanding of ethical dimensions and pathways to their resolution
 - teach them to expect more from science
- Establish standards and guidelines for ethical behaviour
 - e.g. via the ASAP
- Equivalent of a Hippocratic oath for scientists ?

Ethics: science culture

- Best practice in climate adaptation (ie including a range of views, be needs-oriented, transdisciplinary and share power, responsibility and knowledge) is a good start
- Appropriate checks and balances to support full transparency to decision-makers throughout the research process (e.g. managing conflict of interest)
- Encourage researchers to be ‘honest brokers’ of (some of the) adaptation knowledge with institutional support to ‘hand-over’ research and decision-maker partners
- The research community needs to become more reflexive and recognise that adaptation resides with them and their institutions as well as with decision-makers
 - Public Values ideas

Ethics: a last word

- Behaving in an ethical way does not inherently remove risk from adaptation research practice or decision making; rather it allows us to more explicitly manage certain types of risk related to the motivations and behaviours of those operating in this domain



Thankyou

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