

The AI Bubble- Illustrated

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Abstract



It is said that there is a huge economic bubble around the current artificial intelligence AI complex.

It is said that this bubble has about 17 times the volume of the dot-com-bubble or the sub-prime crisis.

It is said that the bubble mainly consists of a disbalance between expectations into the capacity of AI and a lack of real-world applications. There are even sources who restrict the disbalance to the promise of reduced work-force (human capital) and AI's incapability of ever truly substitute human beings. From the latter narrative also results a huge amount of social-economic uncertainty and fear for the working population.

A thorough analysis shows us that these assumptions themselves are quite disbalanced.

The volume



According to a variety of sources, the volume of the AI bubble is about 140 to 180 Trillion US\$.

However, there is a very important parameter defining the “bubble-property” of the AI-market and only if this parameter is been set to its maximum value, we end up with such a horrific number for the volume of the “AI-bubble”. Any other value of this parameter gives smaller volumina.

In addition, it has to be mentioned that the “parameter” is anything but a parameter. It is a function which is quite complex and depends on many variables withing the intricate AI tech and market field.

The “Bubble-Parameter”

It has to be understood that only the very part of the AI-field, which is built upon pure speculation and volatile trust, truly contributes to, respectively, is the bubble. Everything else – of course - is also

just speculation as almost everything in every market is (the definition of the value of something is an agreement between various parties and hence, always based on certain forms of trust and speculation), but it is not based on the same level of uncertainty as the higher speculative aspects are.



It is important to properly weigh and evaluate those fine differences, which brings us to the need of a Quantum Economics Model System. We are not going to discuss such an apparatus here, but it should be pointed out that it requires a general Quantum Gravity Systems Approach to develop such a model.

It is also of immense importance to emphasize the intrinsic volatility of the bubble-parameter. It strongly depends on the actual market conditions whether an AI-field can be considered stable or rather should also be treated with great caution. Just as AA-ratings were suddenly under pressure during the sub-prime crisis, so can an apparently stable market position become unstable due to a crumbling environment.

How to Save the Day?

It requires 4+1 main ingredients to whip up the medicine to avoid the disaster and NO, none of these four pillars + 1 are “applications” (de facto, “applications” are a necessary factor, but they are contained within the 4+1 main factors).



Explaining the LLM-limit and solving related problems

This requires a Quantum Gravity Statistics.



A Fundamental Socio-Economic Systems Science

A technology as transformative as AI has the capacity of creating social phase transitions and other significant ripples (well, shock-waves) within the socio-economic space-time. In order to understand and steer its influence in the right (rational, responsible, and reasonable) manner, we have to have a realistic model system for the human society.

All ideology has to be eliminated from the governmental order.



PILLAR II
OF 4+1

THE AI BUBBLE

PART VI: EXPLAINING THE LLM-LIMIT
AND SOLVING RELATED PROBLEMS



THIS PILLAR:

MULTI-SCALE CORRELATIONS

CAPTURING STRUCTURE ACROSS ALL SCALES AND DIMENSIONS.

BEYOND SINGLE-SCALE VIEWPOINTS.

Reality is hierarchical.
Understanding emerges
when all scales are
connected.

MULTI-SCALE CORRELATION FUNCTION.

$$C(r_1, r_2, \dots, r_n) = \langle O(r_1)O(r_2)\dots O(r_n) \rangle$$

SCALE-INVARIANT INSIGHT

$$I = \int_{\Omega} C(r_1, r_2, \dots, r_n) d\mu$$

FROM LOCAL NOISE TO GLOBAL ORDER.

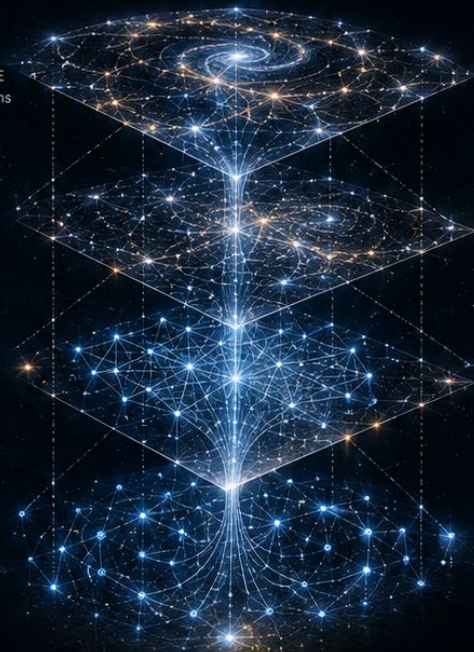
Correlations reveal what
averages conceal.

MACRO SCALE
Global patterns

MESO SCALE
Regional
structures

MICRO SCALE
Local
interactions

NANO SCALE
Fundamental
fluctuations



WHY IT MATTERS



REVEALS HIDDEN STRUCTURES

Finds order in complexity
across all scales.



CONNECTS THE DISCONNECTED

Links micro-events to
macro-outcomes.



REDUCES UNCERTAINTY

Improves predictions by
using full structural
information.



SCALE-INVARIANT UNDERSTANDING

Discover laws that hold
across scale and system.



ROBUST BY DESIGN

Resilient to noise, gaps
and missing data.

TRUE UNDERSTANDING IS MULTI-SCALE.
CORRELATION IS THE LANGUAGE OF COMPLEX REALITY.

THE PILLARS



I
QUANTUM
GRAVITY
STATISTICS



II
MULTI-SCALE
CORRELATIONS



III



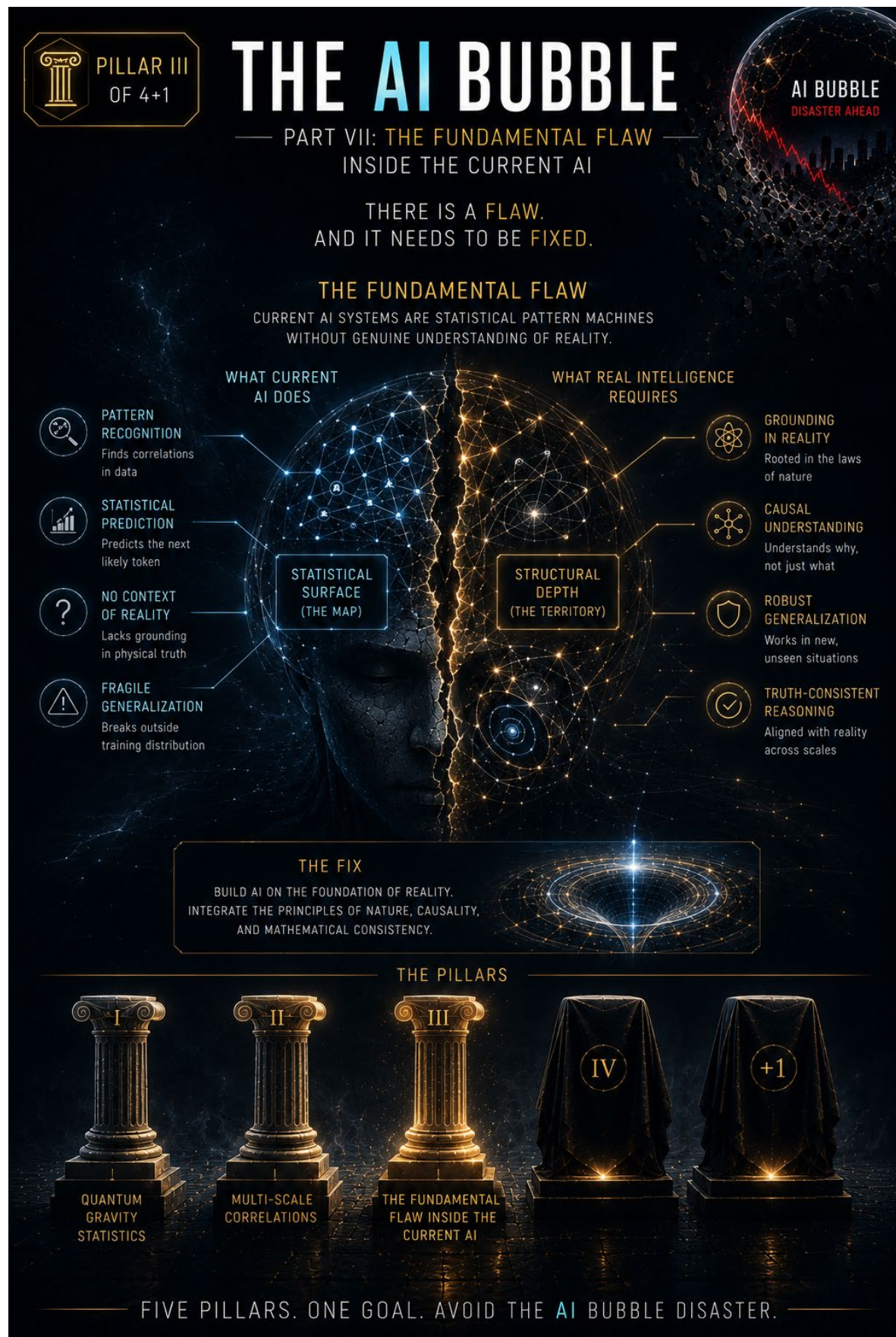
IV



+1

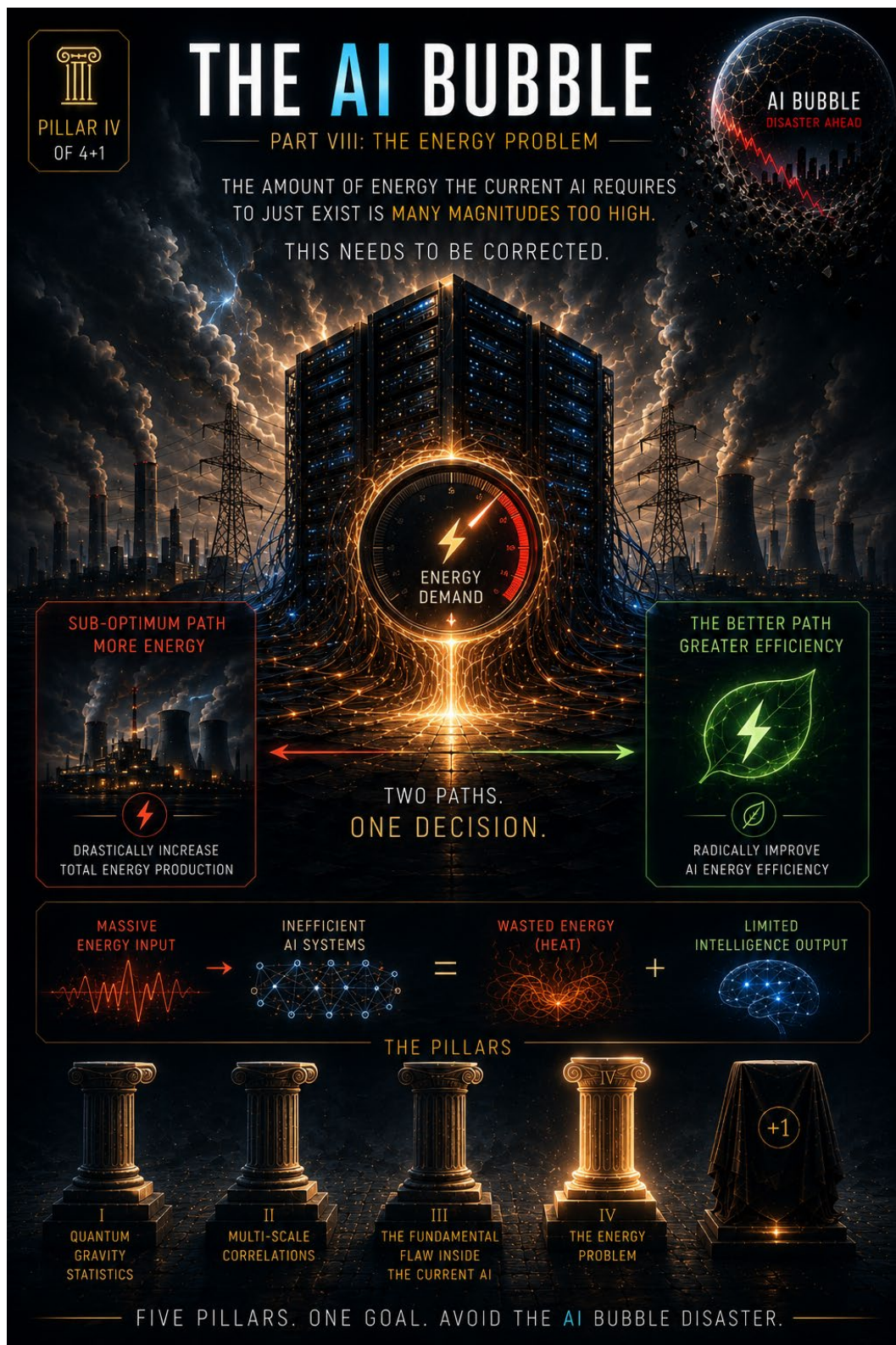
FIVE PILLARS. ONE GOAL. AVOID THE AI BUBBLE DISASTER.

The Fundamental Flaw Inside the Current AI



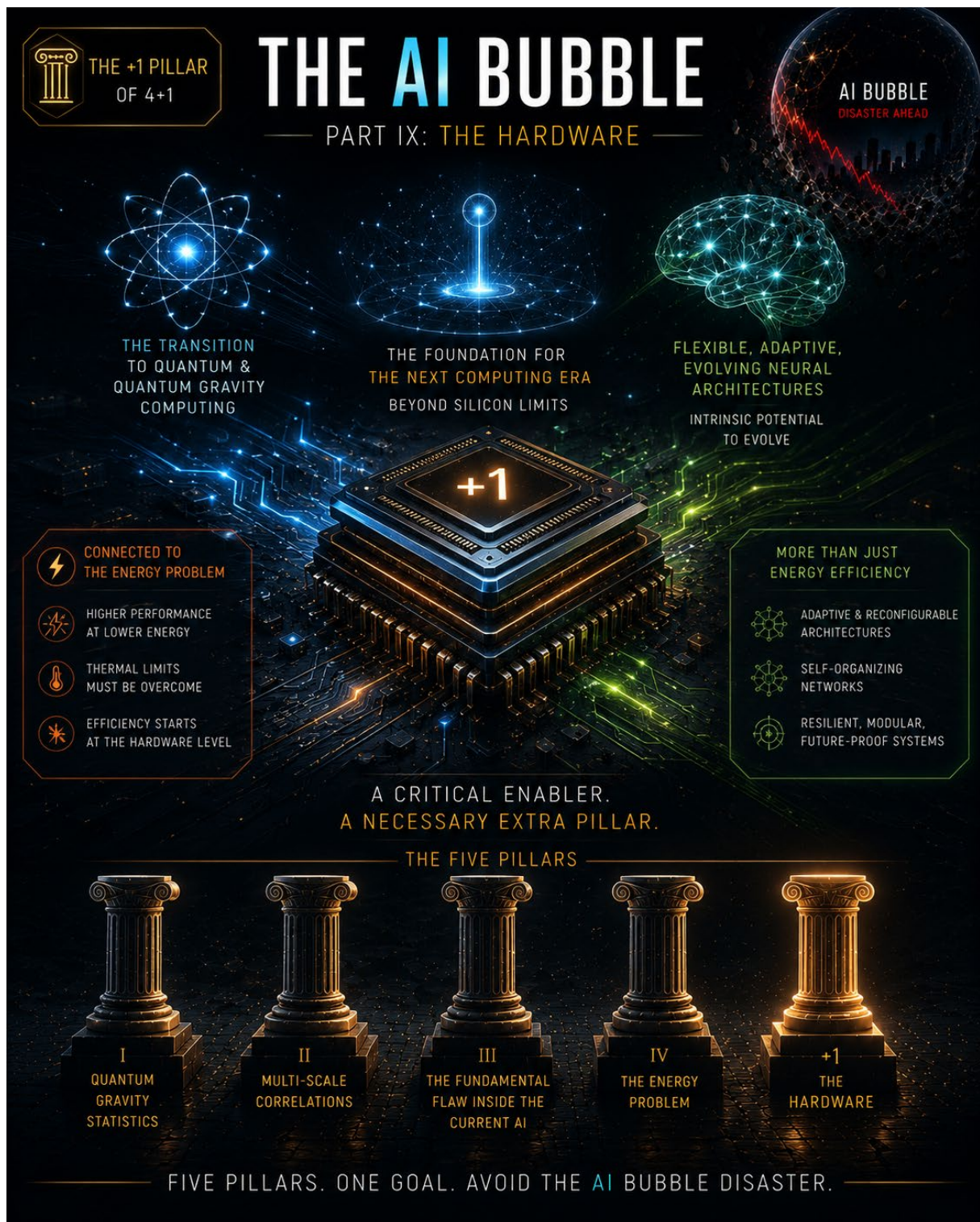
There is a flaw and it needs to be fixed.

The Energy Problem



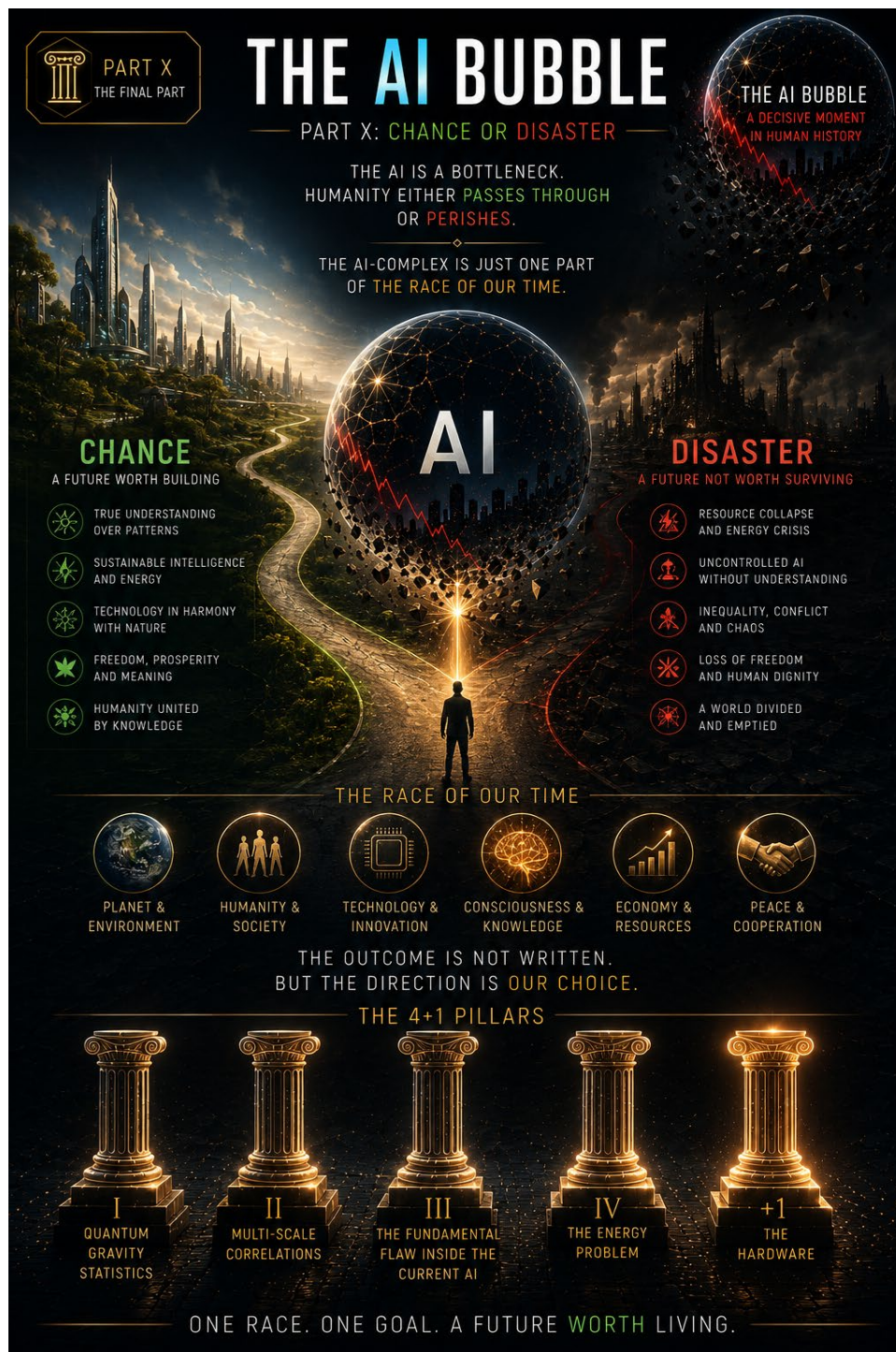
The amount of energy the current AI requires to just exist (not even to speak about to function properly) is many magnitudes too high. This needs to be corrected, either by a much higher total energy production (sub-optimum) or by a greater AI energy efficiency (much better way).

The Hardware



This aspect can be considered as secondary, because it is partially connected with the energy problem. That is why we counted this point as “+1”, but there are also other components to it which make it worthwhile to be considered as an extra point, which are the necessary transition to Quantum or even Quantum Gravity Computing and the need for a higher flexibility of the neuronal networks with the intrinsic potential to evolve.

Chance or Disaster



Summing it all up, we think that the AI is one of those bottle necks where humanity either passes through or perishes.

Seeing the holistic character of the various tasks to be solved, we clearly recognize how the whole AI-complex is just one part of “the race of our time” [1].

References

- [1] N. Schwarzer, “The Race of our Time”, 2026, a SIO publication, www.siomec.com