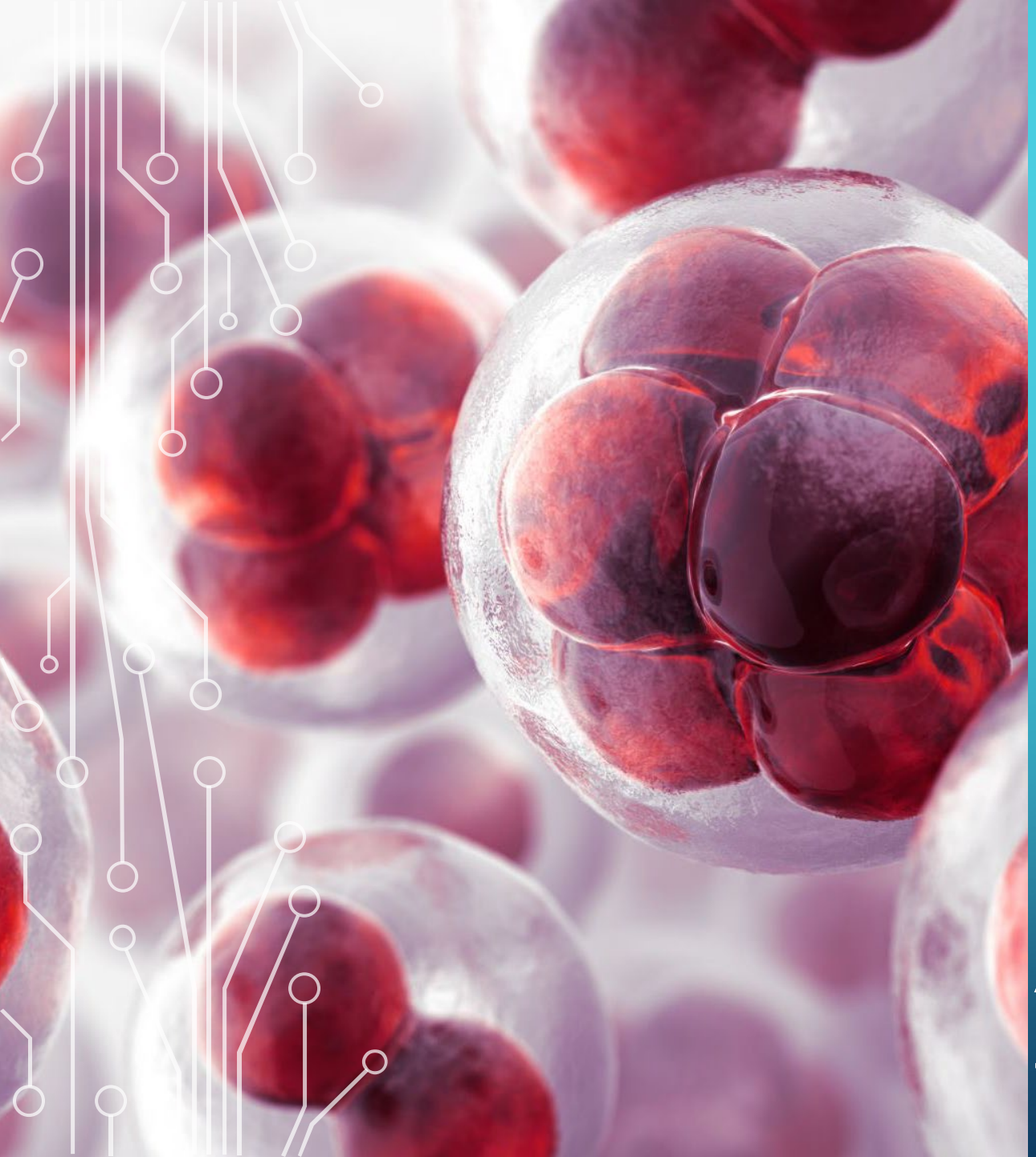
CENTRICS (BY ANNEXXIO)

THE UNIVERSAL LANGUAGE OF THE FUTURE

Welcome (to the future)

- Thank you for coming!
- Today is 20 years in the making!
- Ask Questions actively and help create! (Fragerunde inklusive)
- Drinks and Food included
- Investment and Networking Opportunities
- Enjoy!



MY DEVELOPMENT

LIFE IN SYDNEY, AUSTRALIA

INTEREST IN PHILOSOPHY & SCIENCE

KANTONSSCHULE BADEN

UNIVERSITY OF NEW SOUTH WALES

STUDY: PURE MATHS & PHILOSOPHY

DEVELOPMENT OF CENTRICS

BACK TO SWITZERLAND

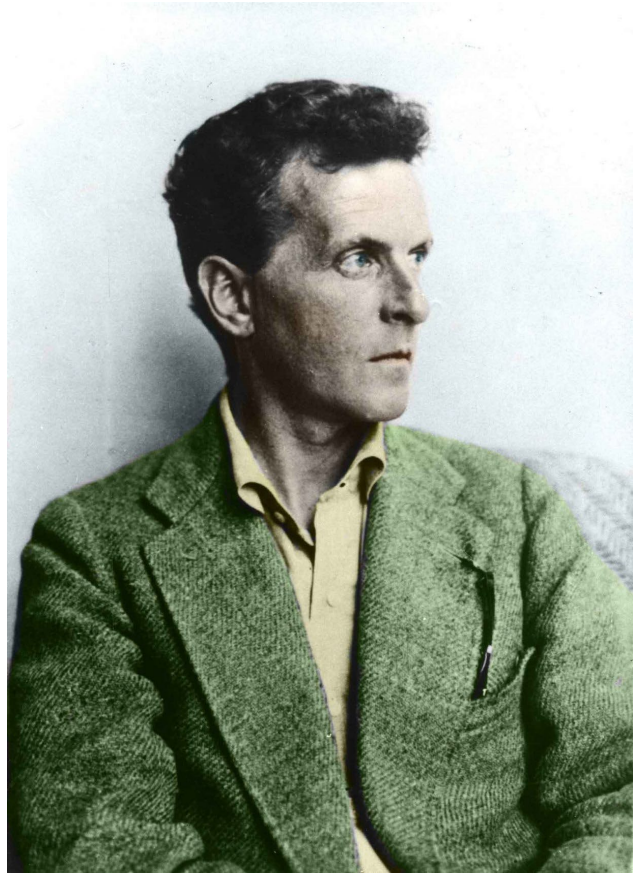
ANNEXXIO AG (IN GRÜNDUNG—I.G.)

TODAY: THIS PRESENTATION

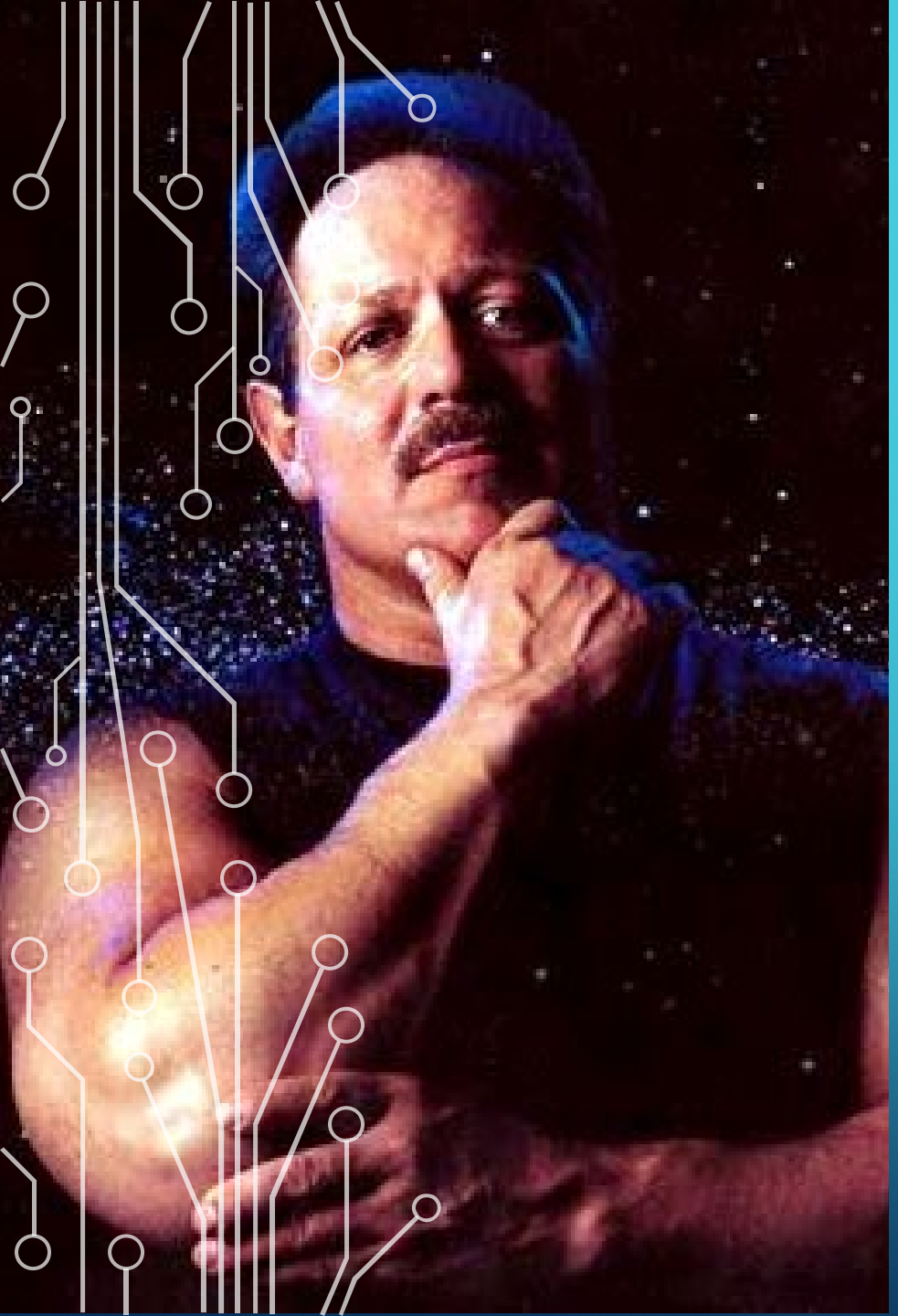
WHAT IS CENTRICS? LET'S START FROM THE BEGINNING

- Gottfried Wilhelm von Leibniz (1646-1716) and his Universal Language to describe and solve all human problems (*Mathesis universalis* or *Characteristica Universalis*)
- It was abandoned and considered a failure!
- Some consider this Project Impossible!

"LANGUAGE IS THE VEHICLE OF THOUGHT"



- Ludwig Wittgenstein (1889-1951)
- Tractatus Logico-Philosophicus
- Philosophical Investigations



CHRISTOPHER MICHAEL LANGAN (IQ 210) AND HIS SELF-CONFIGURING, SELF-PROCESSING LANGUAGE (SCSPL)

- Highest measured adult IQ (numerous media sources)
- DID state that mathematics and physics are **inadequate** to describe nature
- DID NOT develop a language to "replace" them, and INSTEAD simply theorized about an ideal language he calls **SCSPL**
- He is 15+ years behind me, despite starting his "**CTMU**" 20+ years before me and publishing it in June, 2002

WHAT CAN WE LEARN FROM LEIBNIZ, WITTGENSTEIN AND LANGAN?

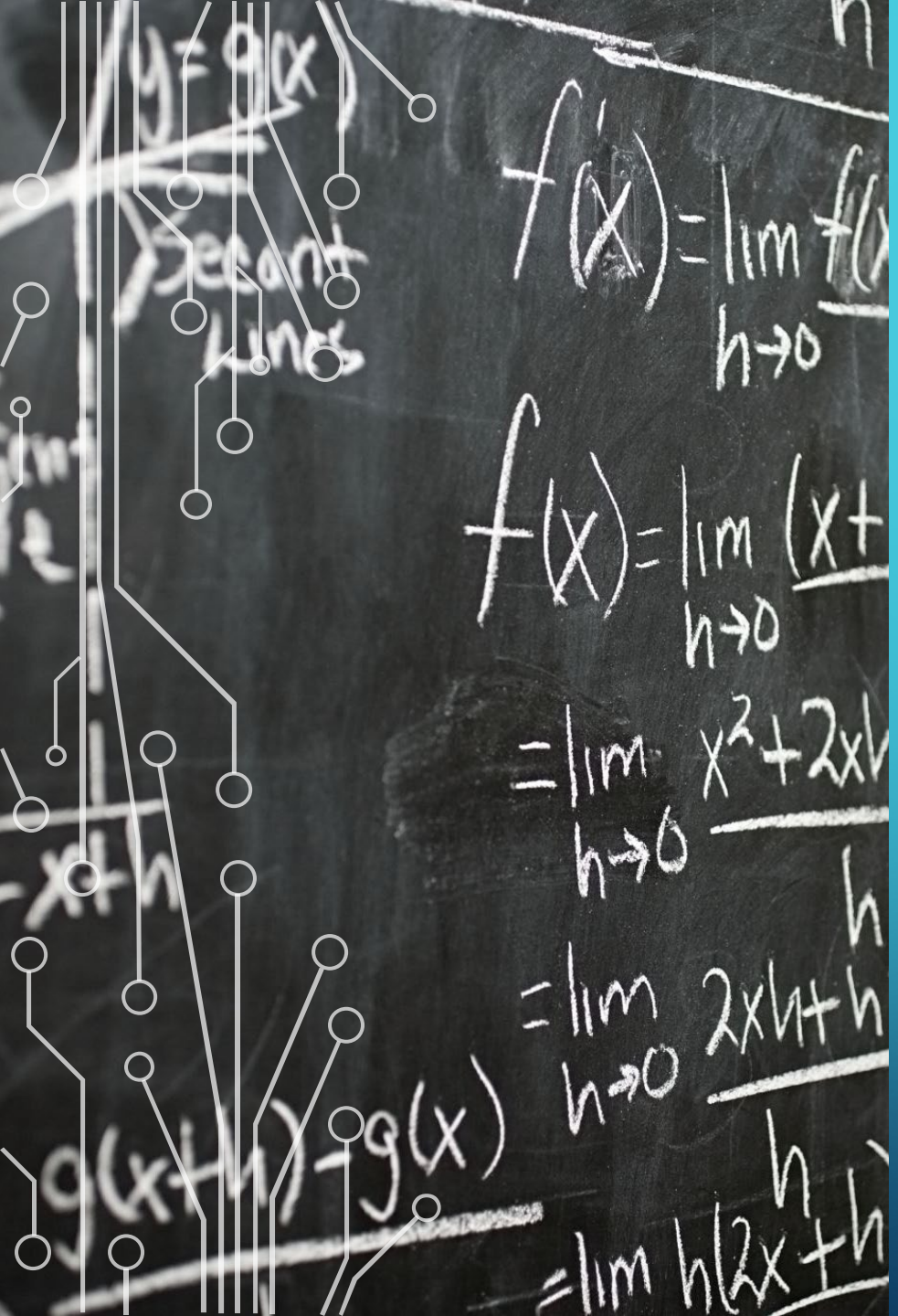
Leibniz laid the Ground Work for Centrics

(A beautiful Dream)

Wittgenstein encouraged the development of Centrics (A superior Language generates Superior Thoughts)

Langan pointed metaphysically into the direction of Centrics, but failed to develop it himself

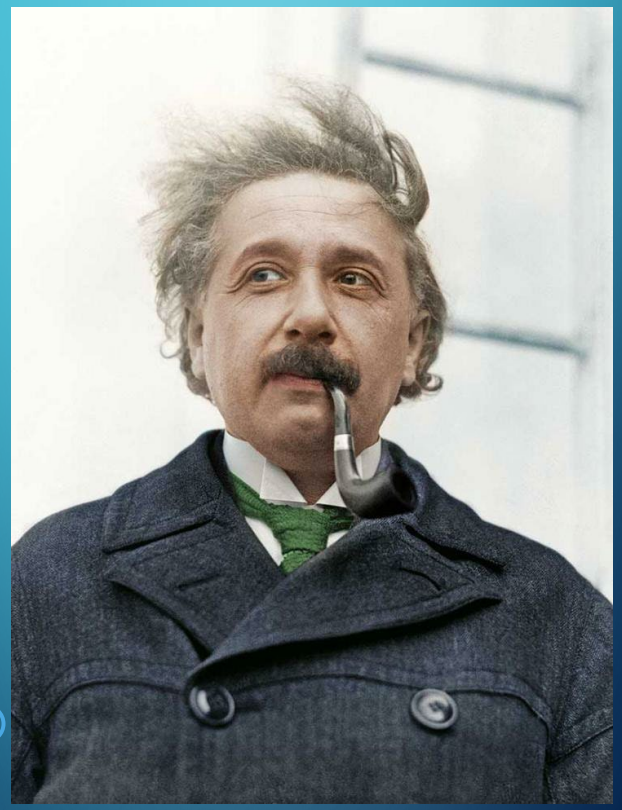
ALL OF THEM PLANTED SEEDS THAT ENCOURAGED ME TO KEEP PUSHING FORWARD



WHY DOES THE WORLD NEED CENTRICS?

- PROBLEMS IN PHYSICS: NO UNIFICATION OF GENERAL RELATIVITY AND QUANTUM THEORY. NO "TOE"
- PROBLEMS IN MATHEMATICS: PROBLEMATIC FOUNDATIONS AND NO GRAND UNIFICATION. GÖDEL INCOMPLETENESS THEOREMS, INADEQUATE NOTATION & RIGOR & OVERALL UNIFIED STRUCTURE. CENTRICS RESOLVES ALL THIS.
- MAX TEGMARK (MIT) SAYS MATHEMATICS = PHYSICS (MATHEMATICAL UNIVERSE HYPOTHESIS–BUT HE CANNOT DEMONSTRATE IT, ONLY HYPOTHESIZE IT)
- SUPERIOR LANGUAGE = SUPERIOR THOUGHTS = SUPERIOR TECHNOLOGIES = SUPERIOR SOCIETY(?)
- NEW DISCOVERIES IN MATHEMATICS = NEW DISCOVERIES IN PHYSICS AND VICE VERSA

GENERAL RELATIVITY: A THEORY OF GRAVITY



$$G_{\mu\nu} = 8\pi G T_{\mu\nu}$$

Law of an expanding universe

All matter and energy in the universe

Einstein's original equation

$$G_{\mu\nu} + \Lambda g_{\mu\nu} = 8\pi G T_{\mu\nu}$$

Law of an expanding universe

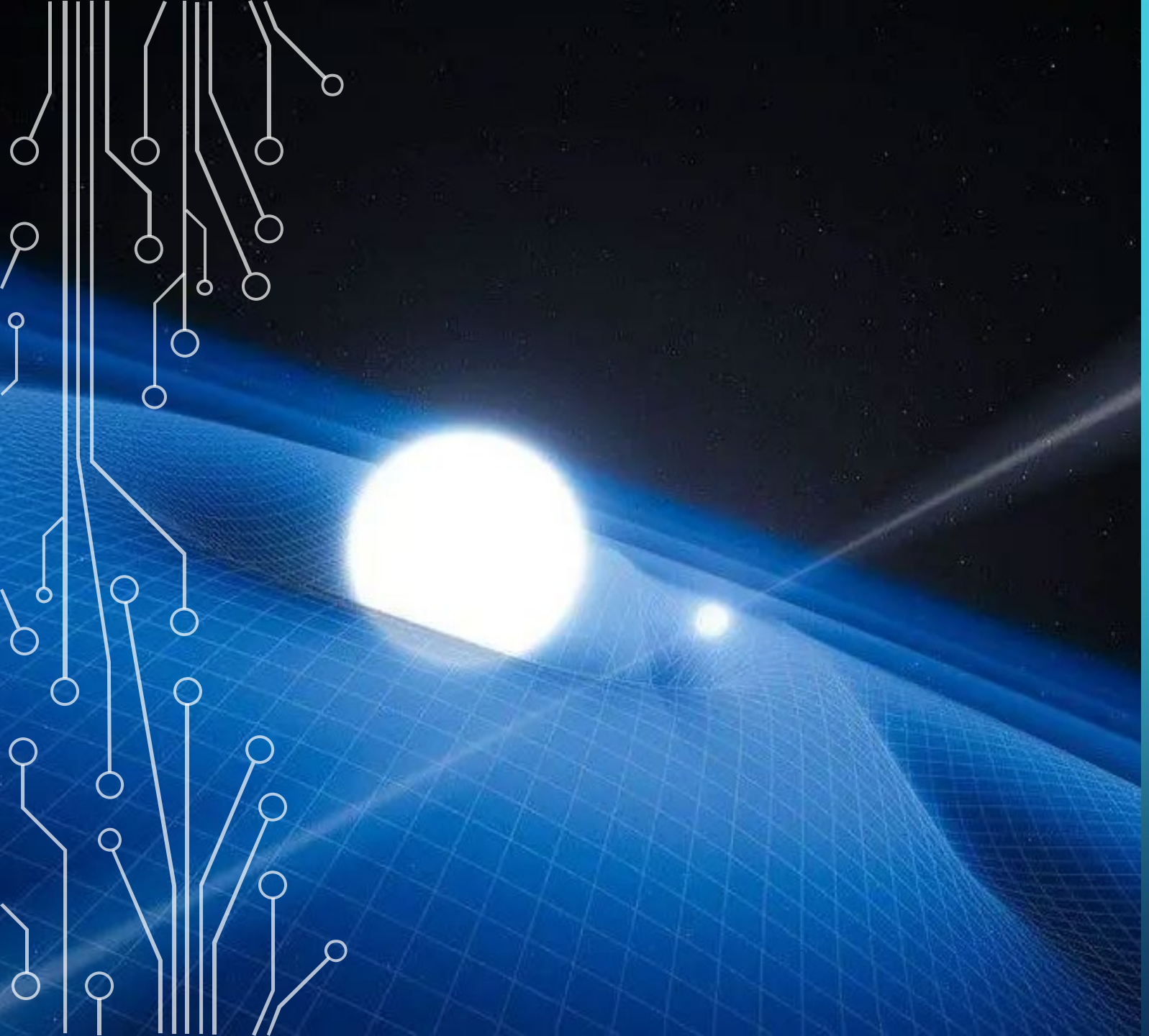
Cosmological constant

All matter and energy in the universe

$$G_{\mu\nu} = 8\pi G(T_{\mu\nu} - \bar{\rho}_{DE} g_{\mu\nu})$$

Law of an expanding universe

All matter and energy in the universe



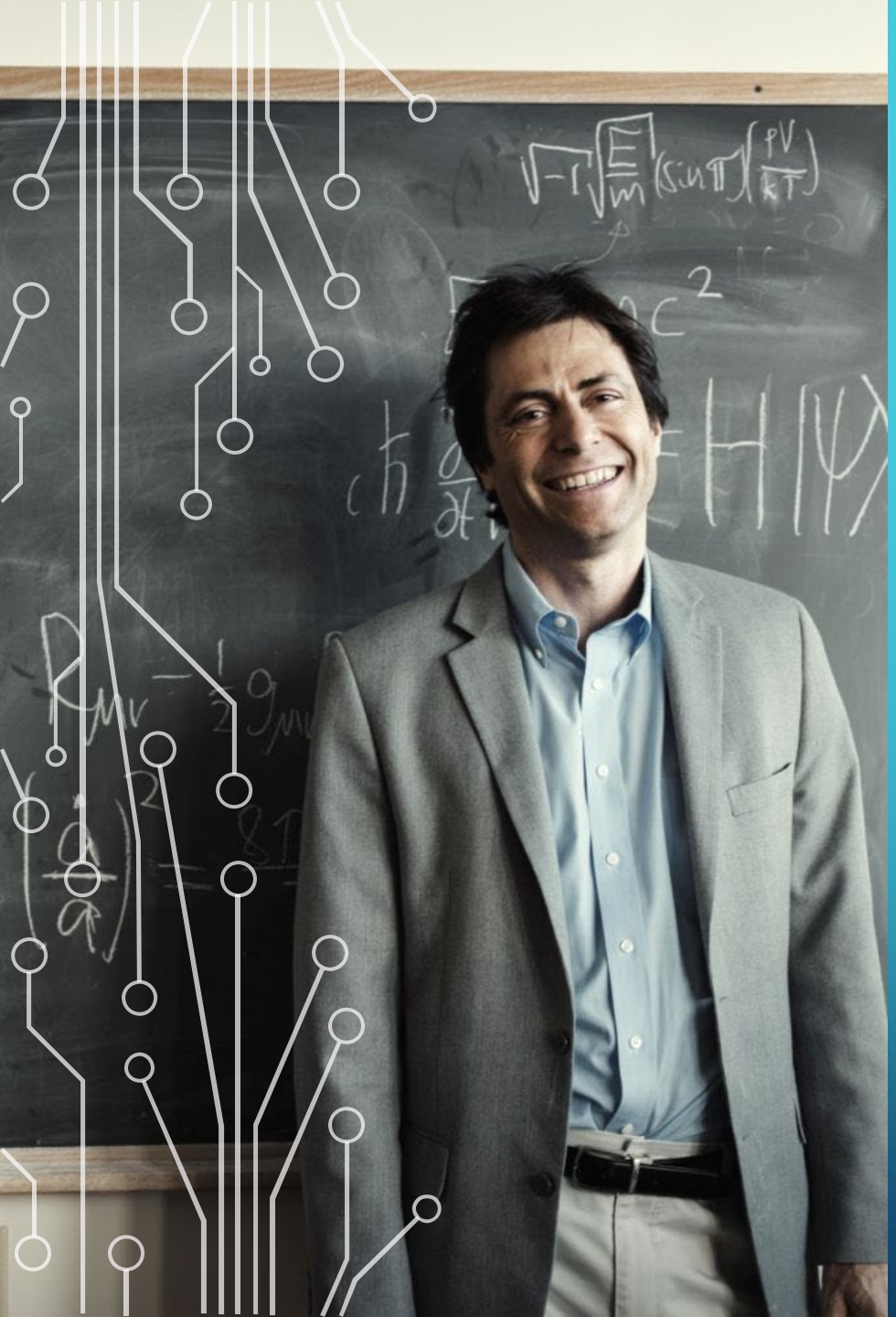
VISUAL EXAMPLE OF GENERAL RELATIVITY

- Massive Objects generate warped space-time geometry
- “Mass tells Geometry how to curve, and Geometry tells Matter how to move”
- Light can bend, Time can slow down, Objects can become “infinitely” dense (Black Holes)
- SR = All Reference Frame measurements are equivalent (Speed & Time)
- GR = All accelerated reference frames cannot be distinguished from a gravitational field! (Acceleration & Gravity). Background-Independent

$$H\Psi = ih\frac{\delta\Psi}{\delta t}$$

QUANTUM MECHANICS

- A probabilistic Theory of (small) Reality
- Incompatible with General Relativity
- Background-Dependent
- Lays the foundation for modern electronics- and telecommunication systems

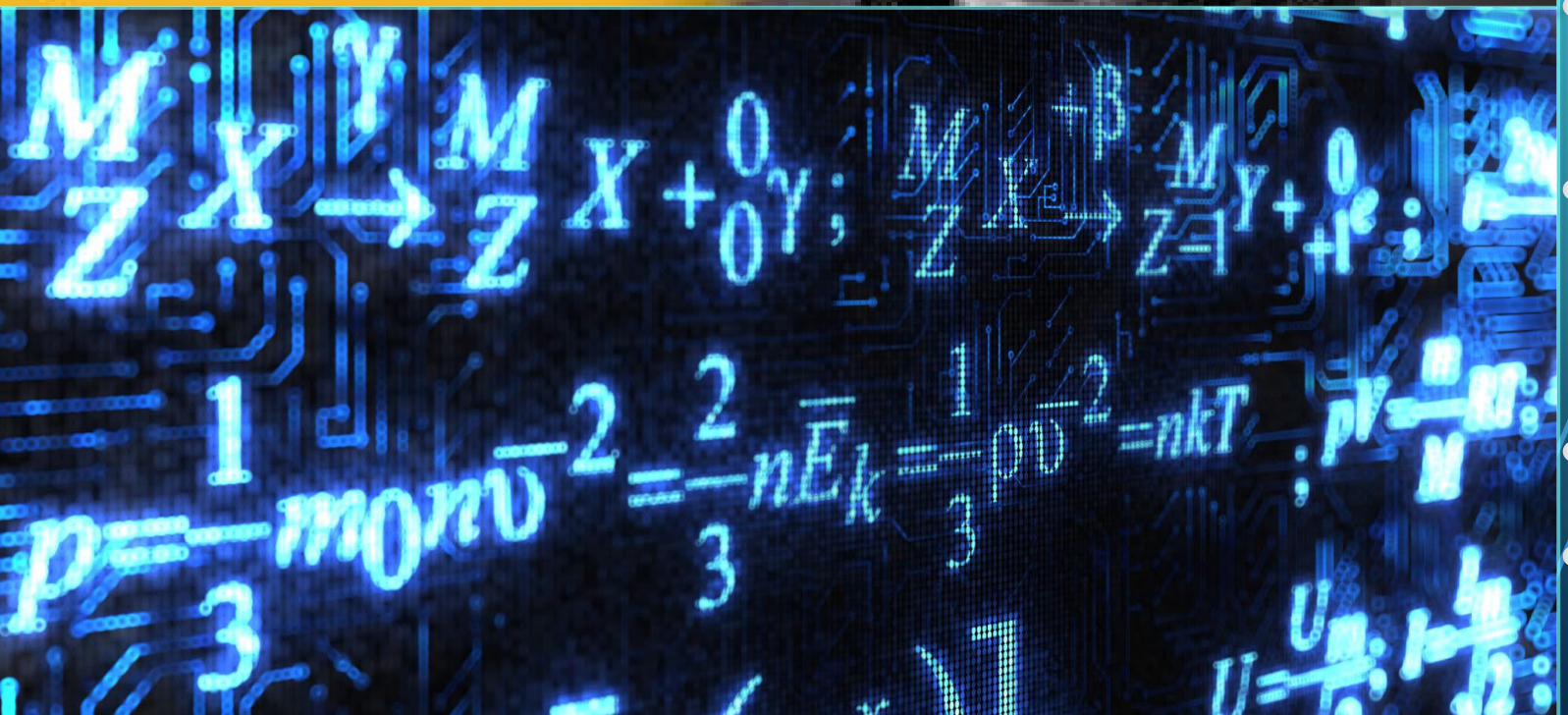


NEITHER OF THESE THEORIES AND METHODOLOGIES (MATH) INCORPORATE: INFORMATION

- Max Tegmark from MIT has made TWO important steps in the right direction: Perceptronium as a State of Matter, and MATH = PHYSICS (Mathematical Universe Hypothesis or MUH)
- These revolutionary concepts are developed and GENERALIZED in the language of Centrics

WE ARE LIVING IN THE INFORMATION AGE

- THE DIGITALIZATION OF INFORMATION
- THE UBIQUITY OF INFORMATION
- INFORMATION AS A DIGITAL CURRENCY (BLOCKCHAIN/BITCOIN)

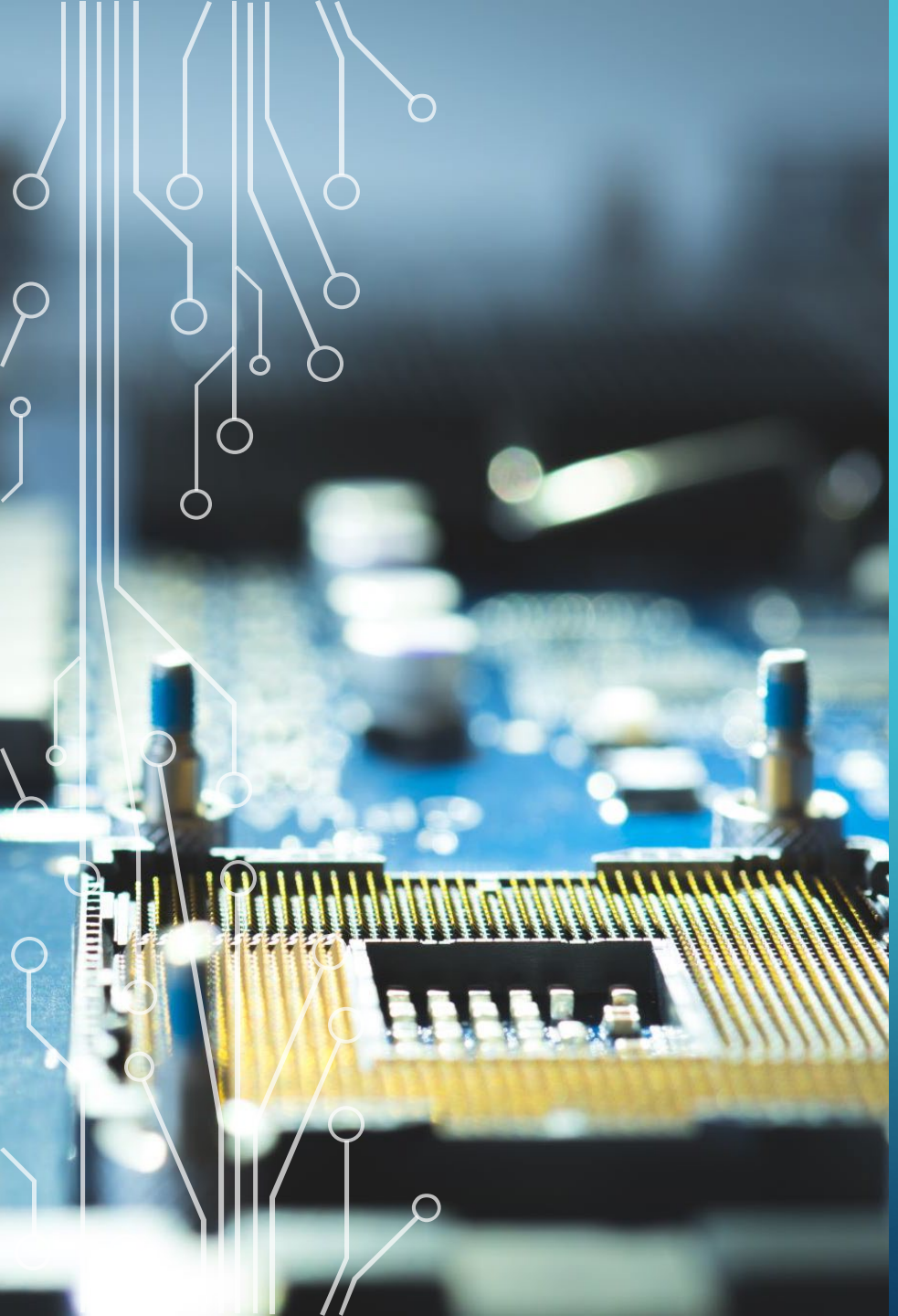


PROBLEMS IN MATHEMATICS

- Norman Wildberger (Set Theory, Foundations, Real Numbers, Continuum)
- Doron Zeilberger (Real Numbers, Calculus, Infinities)
- Wolfgang Mückenheim (Set Theory, Cantor's Diagonal Proofs)
- Vladimir Voevodsky (Proof Assistants, Problematic Foundations, Inconsistent Theories)
- Kurt Gödel (Incompleteness)
- Banach-Tarski Paradox, etc.

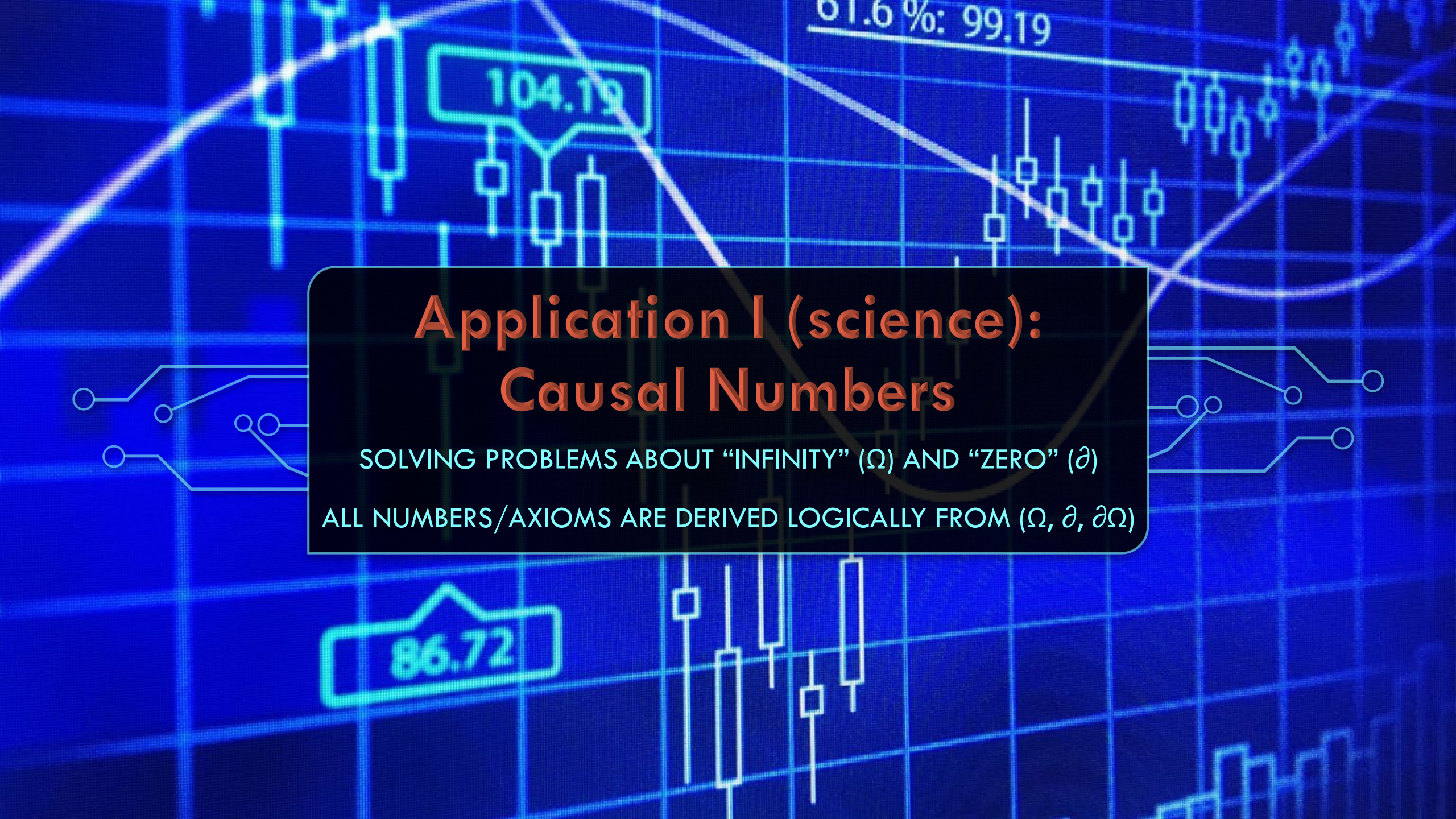
Superior Language → Superior Thoughts → Superior Technologies → Superior Civilizations

- Kardaschev (1932-2019) Scales (Civilizations I-III)
- The Universe as a Universal Leibniz Machine (ULM – A Type of General Quantum Information Computer GQIC modeled in Centrics)
- Mathematics as Pseudo-Code in this GQIC
- Centrics as accepted programming language in this GQIC = ULL(GQIC)
- ULL = Universal Leibniz Language
- ULP = Universal Leibniz Program



APPLICATIONS OF CENTRICS IN SCIENCE, TECHNOLOGY & BUSINESS

- Unification of mathematics & physics with the laws of nature
- Quantum Computing and Quantum Information
- New Social Systems, Ethical Systems, Judicial and Political Systems
- Investment Opportunities in new technologies developed with Centrics, by Annexxio
- Save trillions of dollars on inefficient dead-ends in science & technology and various business sectors
- New and revolutionary Algorithms for Social Media Platforms (presented by Annexxio)



Application I (science): Causal Numbers

SOLVING PROBLEMS ABOUT “INFINITY” (Ω) AND “ZERO” (∂)

ALL NUMBERS/AXIOMS ARE DERIVED LOGICALLY FROM (Ω, ∂, $\partial\Omega$)

Application II (science): Cosmology

- Merging Science with a High-Order Language (Centrics)
- Information Engineering (Unit particles & Dark Energy)
- Universal Causality and Teleology
- Variation of Natural Laws and “Constants”
- Cosmic Engineering & Human Interplanetary Expansion
- Cosmic “Natural Selection”

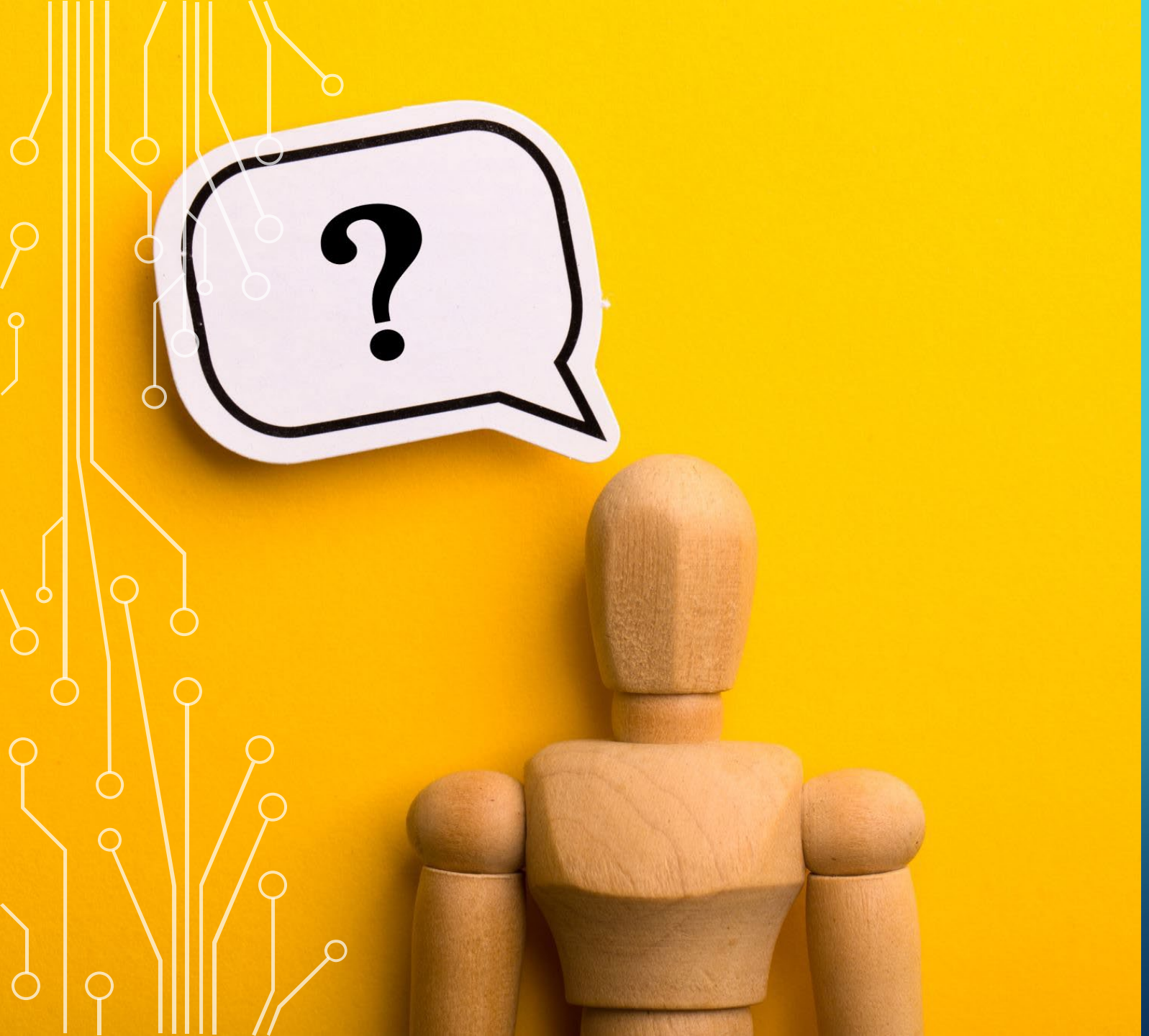
Application III (technology): Social Media 2.0

The Future of Economics (or: Who or What is valuable?)

Decentralized Social Capital Network developed by Annexxio AG

This platform quantifies and qualifies worldwide economic value precisely, based on global social capital distribution. This is invaluable to businesses, governments, societies.

Whether we like it or not: SOCIOMEDIOMICS is coming soon. Who will own the worldwide market?

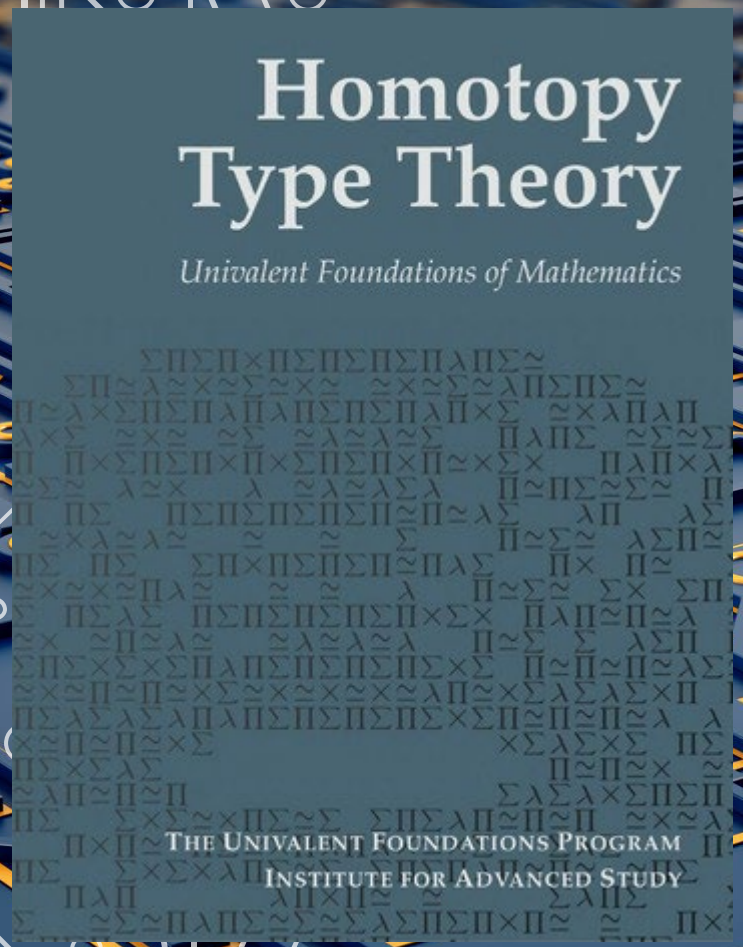


SOME MISCONCEPTIONS ABOUT CENTRICS

- “I am not an expert, I do not / can not understand centrics”
- “I need an expert scientist from a renowned university to check the work. If I don’t understand, how can I invest?”
- “Does centrics disprove 1+1=2?”
- “Will centrics replace mathematics and physics?”
- “Centrics is finished?” Yes and No

COSTS INVOLVED IN THE FINALIZATION, PRODUCTION, DISTRIBUTION OF CENTRICS

- Costs of an additional 6 to 12 months of testing, academic feedback and research. Building Annexxio AG
- Costs of building a competent team with the technical expertise to distribute knowledge & technological insights
- Costs of traveling and lecturing to major academic-, government-, private- and corporate institutions
- Over $US 7.5 million have already been invested by the D.O.D into an inferior programme known as Homotopy Type Theory (Source: Carnegie Mellon University)
- Costs of the development of new technologies produced by Annexxio AG i. G., derived from Centrics



Homotopy Type Theory: a 7.5 millon dollar footnote in Centrics

Homotopy Type Theory: Unified Foundations of Mathematics and Computation

PO: Dr. Tristan Nguyen, Information Assurance and Cybersecurity

PI: Dr. Steven Awodey, Carnegie Mellon University

Website: TBD

RESEARCH PROBLEM AND TECHNICAL APPROACHES: This proposal will enable a tightly knit group of experts in logic, mathematics, and computer science to pursue a recent theoretical breakthrough that is reshaping the foundations of those disciplines. Homotopy type theory is a fundamentally new direction with powerful new principles of reasoning and new, higher-dimensional data types not previously available in set theory or extensional type theory. Its applications range from allowing mathematicians to work with the "right" notion of equality for mathematical structures to offering flexible new generic programming techniques that facilitate the development of certified software. The proposed research will extend the formal foundations of homotopy type theory, further develop its semantics, and study its computational properties. It will also extend formal libraries and computational methods used by computational proof assistants being developed on this basis. This will facilitate the large-scale formalization of logic and mathematics, with far-reaching practical implications for mathematics and information science. The feasibility of this new approach was demonstrated during a special year at the Institute for Advanced Study (Princeton) in 2012–13, the leading participants of which are assembled here into a MURI team. They are uniquely positioned to advance this research program, solving critical open problems and addressing specific issues identified during the IAS year in a proven, effective collaboration.

Homotopy Type Theory is a powerful and exciting new development in mathematics—and especially in the foundations thereof. It certainly marks an important stepping stone in the conceptualization and architectural infrastructure of centrics, because despite only being briefly mentioned in the centrics white paper, it makes researchers more comfortable with centrical concepts such as quantum fields being exchangeable for "proofs" in centrics, which reminds of Homotopy paths connecting two points in a Type to establish their equivalence. Centrics generalizes this idea to "nomological" manifolds of arbitrary dimension.

The Economic Value of Centrics

Carnegie Mellon University

News

Experts

News › Stories › Archives › 2014 › April › Press Release: Carnegie Mellon Awarded $7.5 Million Department of D

April 28, 2014

Press Release: Carnegie Mellon Awarded $7.5 Million Department of Defense Grant To Reshape Mathematics

HoTT awarded a MURI

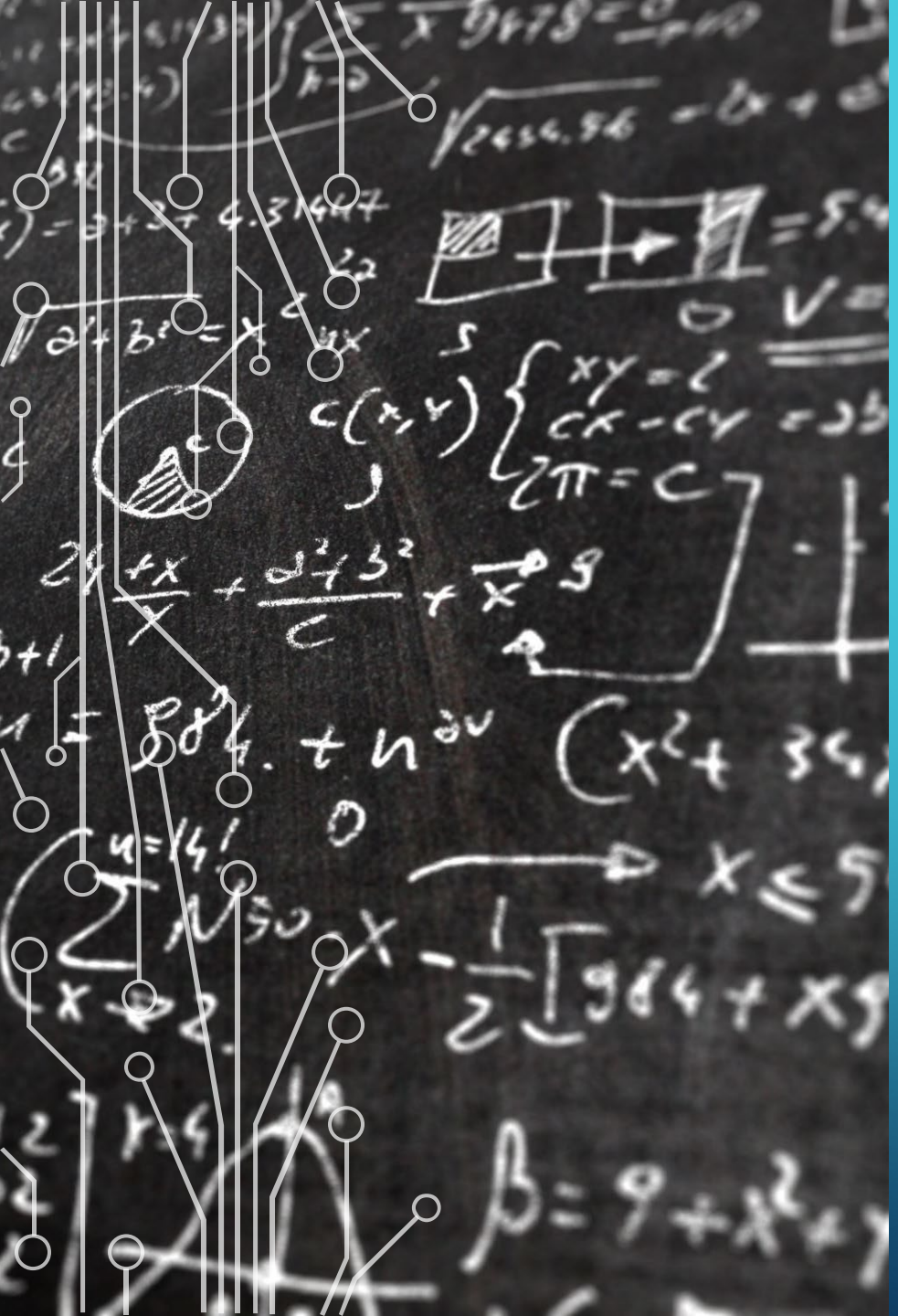
Posted on 29 April 2014 by Steve Awodey

We are pleased to announce that a research team based at Carnegie Mellon University has received a $7.5 million, five-year grant from the US Air Force Office of Scientific Research, as part of the highly competitive, DoD Multidisciplinary University Research Initiative (MURI) program. The MURI program supports teams of researchers that intersect more than one traditional technical discipline, and our effort will focus on mathematical and computational aspects of HoTT. The team consists of Jeremy Avigad, Steve Awodey (PI), and Robert Harper at CMU, Dan Licata at Wesleyan University, Michael Shulman at the University of San Diego, and Vladimir Voevodsky at the Institute for Advanced Study. External collaborators are Andrej Bauer (University of Ljubljana), Thierry Coquand (University of Gothenburg), Nicola Gambino (University of Leeds), and David Spivak (Massachusetts Institute of Technology).

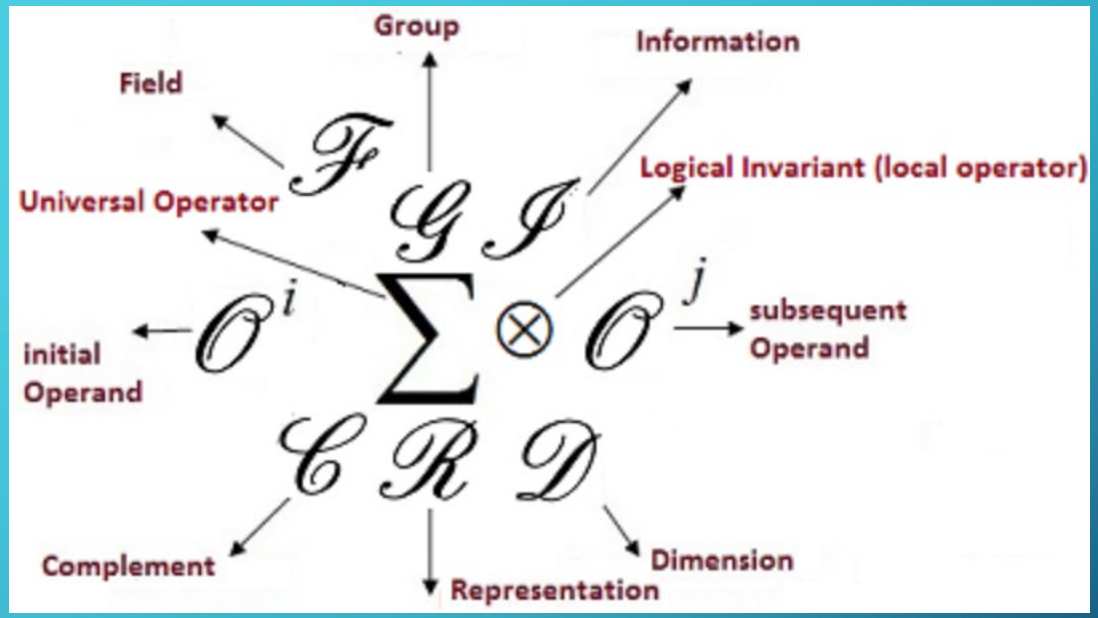
In order to encourage collaboration and development, the funds will be used to provide support for students, postdoctoral researchers, visiting junior and senior researchers, meetings, and conferences. We are delighted about the opportunities that the grant provides to build infrastructure and lay the foundations for this exciting research program.

The technical portion of the grant proposal can be found here: MURI proposal (public).

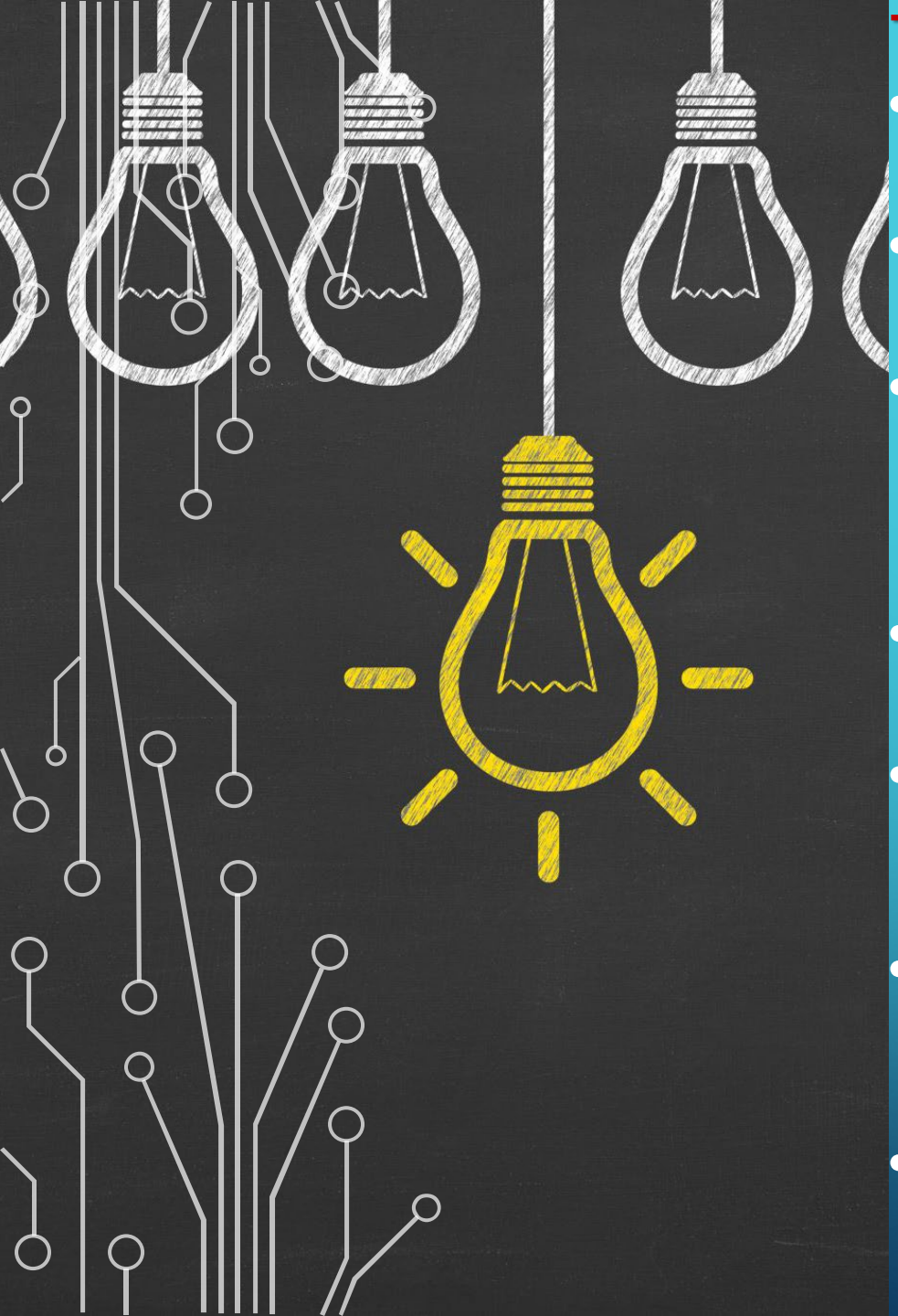
The American Government/Military has already analyzed and vetted the value of HOTT, which can only have tremendous implications for the incalculable value of Centrics not just in science and technology, but social institutions and human civilization overall.



WHY CENTRICS IS SUPERIOR TO MATHEMATICS



Centrics has a unified conceptual and syntactic structure. There are only seven theories (or branches) in centrics (as opposed to the dozens of branches and subbranches in mathematics). All the branches 'co-exist' either explicitly or implicitly in every single centrical expression. The notation/syntax in centrics is strict, precise, and rigid. This "limitation" actually is what gives it so much predictive power, and why it is especially important as a unified natural language to be used in physics (because there are no "exceptions" in its notation, just as there are no "exceptions" to natural laws, either). This implies that we can "map" centrics onto physics and vice versa, using the appropriate "dictionary" and "grammar." If there is a "language of nature," it is centrics, not mathematics.



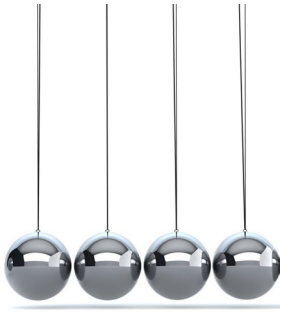
THE SEVEN FUNDAMENTAL THEORIES OF CENTRICS

- Field Theory is of fundamental importance in proofs and equivalences in centrics, connecting "axioms of information-points" to physical processes.
- Group Theory deals with unities, dualities, trialities,…, in all languages and settings in nature, which make it a tremendously powerful technique in proofs.
- Information Theory generalizes Tegmark's "perceptronium" and a heavily modified version of Tononi's "Integrated Information Theory" in physics to incorporate it in all mathematical- and especially centrical objects as points in nomological manifolds.
- Operator Theory deals with the language architecture of centrics and generalizes these architectures to physical processes.
- Dimension Theory generalizes the concept of dimension to define it as true/false/independent statements 'derivable' by an axiomatic point in logical space (and more generally, nomological manifolds).
- Representation Theory provides tools for comparing various objects in the same or different dimension(s) and establishing equivalences between them, in the spirit of AdS/CFT correspondence, modular elliptic curves, etc.
- Complementary Theory provides a bridge between the languages of mathematics and centrics, along with their respective physical counterparts.

ON THE LEIBNIZ PROJECT, THEORETICAL FOUNDATIONS OF CENTRICS AND GENERAL THEORY OF LANGUAGES WITH APPLICATIONS

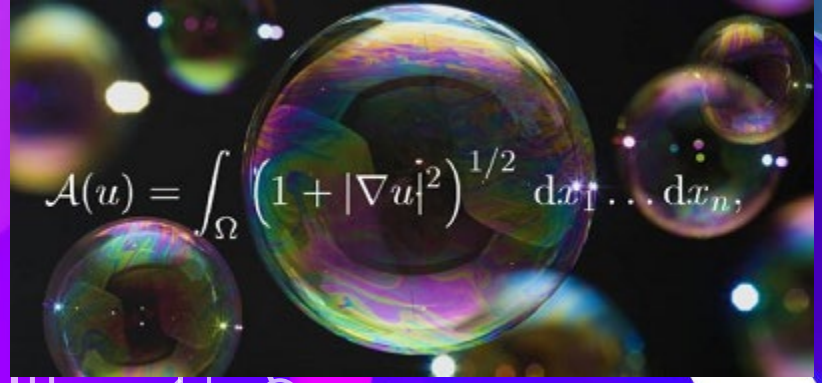
ABSTRACT. The Leibniz Project (LP) is a modernized offshoot of the universal characteristic programme masterminded by Gottfried Leibniz in the 17th century. This programme was eventually deemed impossible and abandoned. In this paper it is reintroduced as being composed of three mutually complementary logical instruments called: Universal Leibniz Language (ULL), Universal Leibniz Program (ULP), and Universal Leibniz Machine (ULM). This gives rise to the theoretical foundations of centrics, the so-called *mathesis universalis*, which is the high-order language (HL) used to formulate and *model* LP. With this universal language, we may coherently and rationally investigate reality by conceptualizing a general syntax and semantics for our sciences as well as our cosmos. Similarly, three key ingredients serve as the motivational backbone of centrics: Max Tegmark's trilogy (3T) of papers on the Ensemble Theory Hypothesis (EH)/Mathematical Universe Hypothesis (MUH)/Perceptronium as a State of Matter Hypothesis (PSH), Christopher Langan's Self-Configuring Self-Processing Language (SCSPL), and Andreas Doering/Christopher Isham's Topos Theory approach to quantum (gravity) theories. We wish to show how an HL can cohesively, efficiently and empirically describe as well as predict natural states of affairs in any conceivable cosmos upon which laws of causality and teleology are contingent. These laws vary from cosmos to cosmos in an evolutionary-, *naturally selective* way. The consequence is that a General Theory of Languages (GTL) is necessary to understand how low-order languages (LL) such as mathematics compare to- and interconnect with HLs. In this GTL we construct a logical bridge between LL and HL and provide a brief exposition on Supreme Languages (SL) and beyond (SL+), inaccessible to HL-communicating sentience. This leads to the concept of language hierarchies, which seals the fate of *theories of everything* (TOE) by way of the Generalized Incompleteness theorem (GI), valid universally in each disparate cosmos. In other words, a given *Kardashev civilization* within a given cosmic system could sufficiently–but never completely–compute its properties, which are presented here in the form of novel technologies in science, engineering, philosophy, economics and business.

A SIMPLE BUT EFFECTIVE EXAMPLE

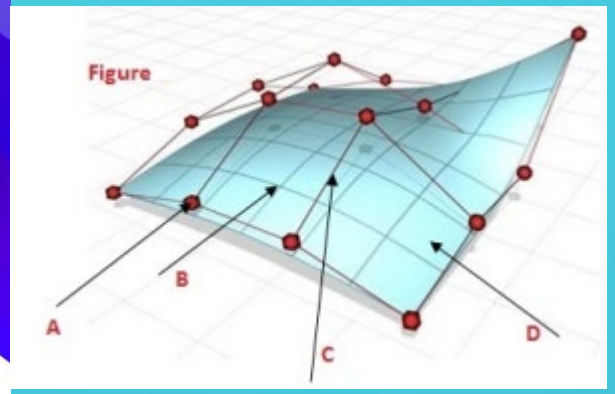


$$\mathscr{G}^{N} \otimes = = \mathscr{G}^{N}$$

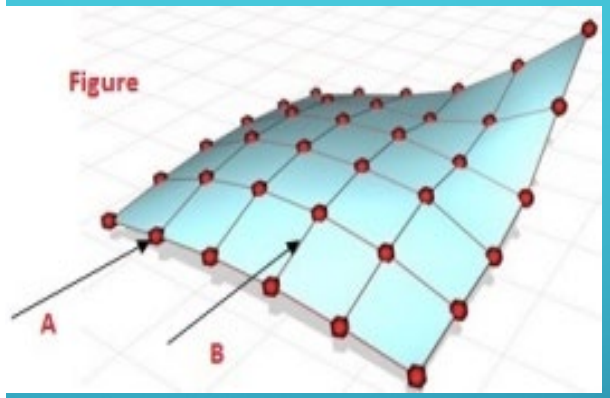
- This equation tells us that if N objects can be ‘connected’ via an operator in a centrical space or manifold, and belong to a group structure, then they are isomorphic-equivalent to all structures in the N-Group. The N-Group structure equivalence extends naturally to physical structures.
- Example: Let us assume that the correlation between [space-time] geometry and [matter-energy] distribution in the cosmos can be established as fundamental. Then simply assuming that [space and time] as well as [matter and energy] are individually separate but related processes, this directly connects [space with matter], [time with energy], and [geometry with the distribution of space and time].
- Note: this does not constitute a proof, nor is it a rigorous formulation and justification of the above. The Centrics white paper demonstrates many such examples in rigorous mathematical detail, which are invaluable in the natural sciences.



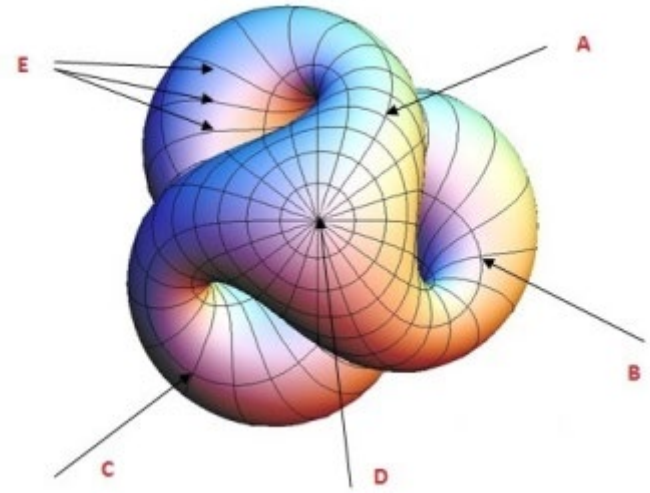
LOGICAL SPACE AND NOMOLOGICAL MANIFOLDS



Pseudo-Logical Space: The general arena in which all mathematical and scientific concepts live and take shape in. This space contains the entire class of Low-Order Languages such as mathematics, English, German, C, C++, etc. These languages are 'countable' and are used by relatively primitive civilizations such as ours.



Logical Space: The general arena in which all Centrical concepts live and take shape in. This Space contains the entire class of High-Order Languages such as centrics, ULL, etc. These languages are 'uncountable.' Code:
A = Axioms, B = Induction/Deduction Fields,
C = Isomorphisms, D = 'Undifferentiated Spaces'



Nomological Manifold: A generalization of Logical Manifolds, which includes Laws of Nature as its internal dynamics through which the language of centrics operates as accepted 'programming' code (or language, as opposed to mathematics being mere pseudo-code).

INVESTMENT OPPORTUNITIES

- Invest with time and networking exchange
- Invest with money (reap rewards. See: mathematics and physics prizes exceeding $10m, with technologies and business- and government ventures valued in the hundreds of billions as a direct or indirect consequence of our technology.)
- Private Equity and Seed Funding for Annexxio and Sociomediomics
- Reap return-on-investment in Science-, Technology- & Business Sectors based on all applications utilized as a percentage of shares in Annexxio AG

RETURN ON INVESTMENT

Annexxio AG

Seed Funding, May/June 2023: 500k CHF

Projected value, January 2024: 10m Euro

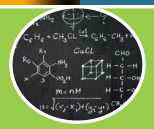
Projected value, January 2025: 100m Euro

Projected value, January 2030: 10b+ Euro

Centrics (International Research Projects, New Technologies, Improved older Technologies)

Global Decentralized Human Capital Network: Sociomediomics (Social Media 2.0)

Game and Media applications



Artificial Intelligence Powered Centrics Tool

Acquisitions of Tech- and Media companies

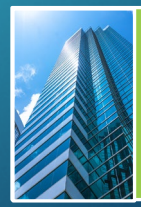
BUSINESS EXPANSION & TECHNOLOGY INNOVATION

Centrics White Paper I (due 15. July 2023. Value: 10m+ Euro)
Centrics White Paper II (due 30 Dec. 2024. Value: 1b+ Euro)

Establish Annexxio AG as the premiere Tech/Media company in Europe ('23-30)

Entertainment Media and Scientific Tech. Phone- & PC apps.

Social Media 2.0



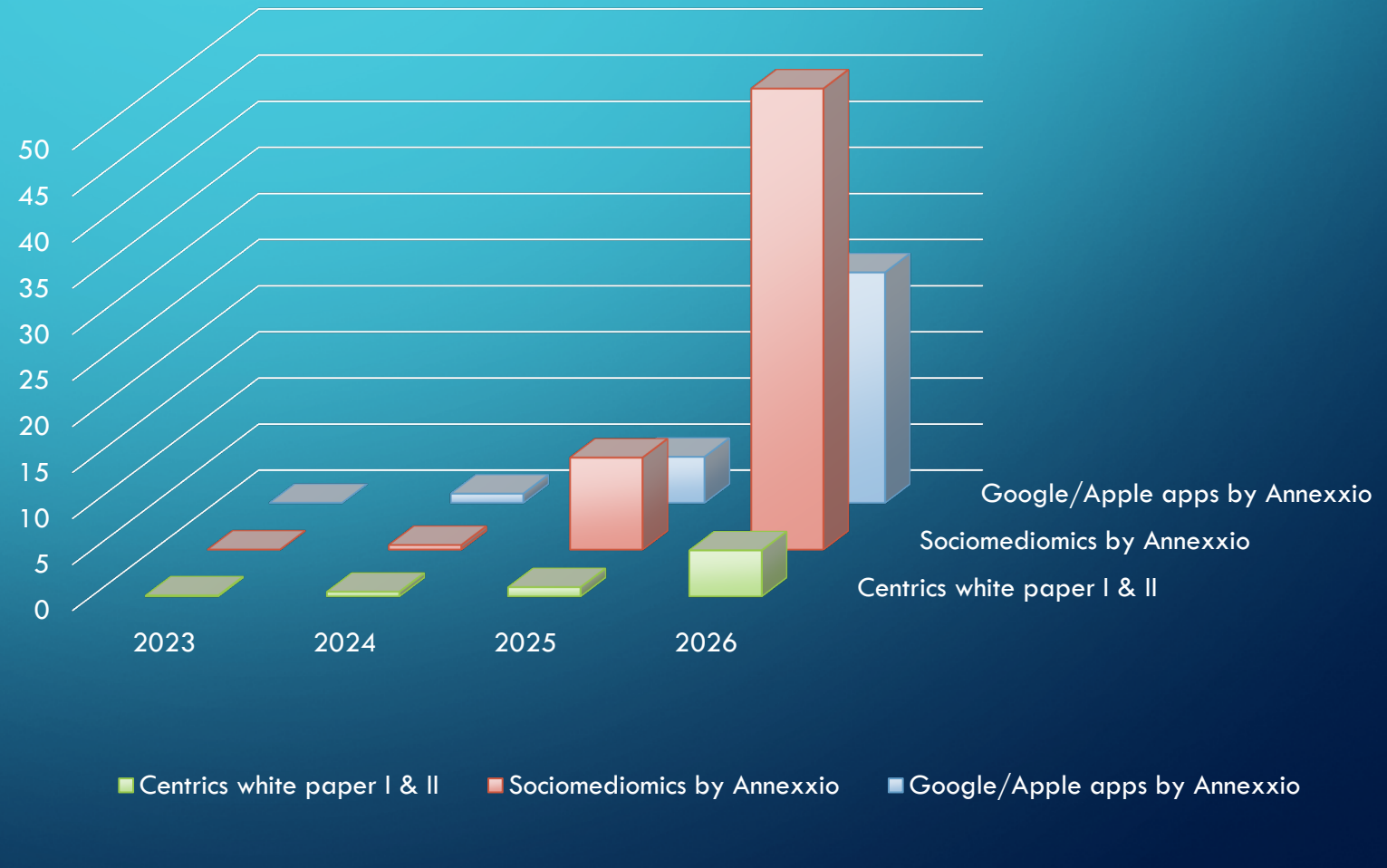
Acquiring & Connecting Tech. Companies

Seed Funding expected in May 2023: 500 thousand CHF.
This will ensure the following:

- ❑ White Paper I is successfully completed (valued at over 10m Euros)
- ❑ Annexxio AG established (still awaiting funds from investors)
- ❑ Business Headquarters secured for the next 4+ years in Zürich area
- ❑ Business and Engineering staff hired and trained. Research collaborations with international research & educational institutions

EXPECTED BUSINESS GROWTH NUMBERS

Centrics and Annexxio projected Impact until 100m+ Euro company valuation (in Millions of active users of the tech.)




THANK YOU ALL FOR COMING!
FOR FURTHER ENQUIRIES, PLEASE EMAIL:
PETER.MELKOR@GMAIL.COM
THE FUTURE IS HERE.