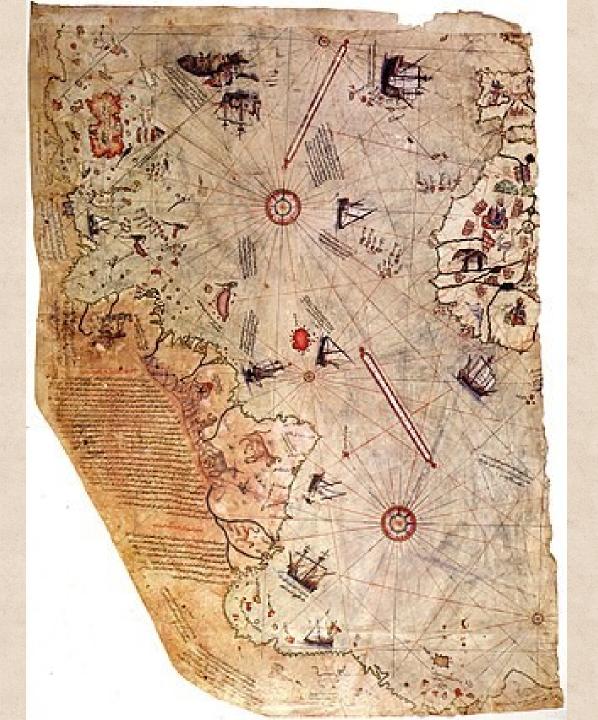
It is said that there are
Great Treasures to be
found in the
TETRAD Lands
and the
Realms of the IRI...

Here be ye olde maps...



The following charts have been prepared in order to help persons of diverse professions, backgrounds and perspectives – particularly in fields of business, commercialization, financial planning and investment - to fully understand how several bodies of work comprising scientific research and technological development have, in a natural manner, and by intention and design, come to be integrative and symbiotic in ways that serve Science, People and Society, and Capital Growth.



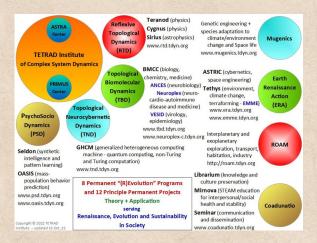


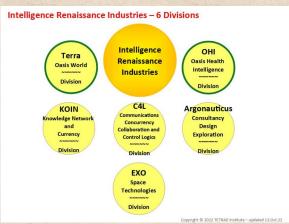


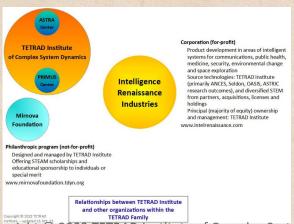
In other documents are charts, maps, and texts that explain the nature and activities of Institute, Company and Foundation in terms of Programs and Projects (TETRAD Institute), Divisions and Products (Intelligence Renaissance Industries), and philanthropic works (Mirnova Foundation).

(e.g., www.tdyn.org/ti-iri-map-set_oct2022.pdf)

Here, we focus upon the Here-and-Now and what is on the forefront of activity with respect to the World we Serve and those Persons who will gain benefits — as recipients, and also as sponsors, collaborators, contributors, investors.







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The fundamental scientific and socioeconomic model remains constant, at the heart of our activities as human organizations operating within a human society on (presently) this One Blue Planet. (e.g., www.tdyn.org/ti-iri-map-set_oct2022.pdf)

The beauty in all this is that, from any analytical perspective, it is

Rational

Beautiful

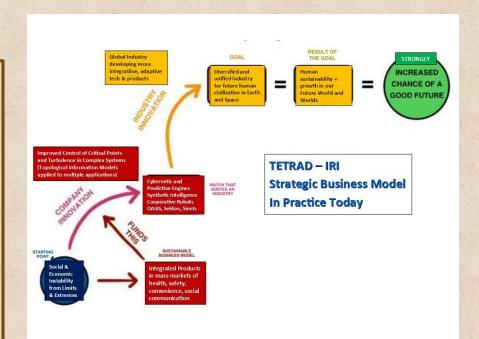
Fertile

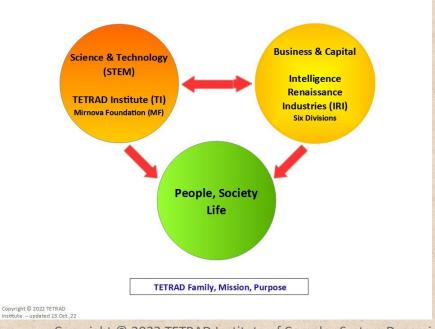
Procreative

Vibrant

Profitable

Powerful





Now let us examine some particular activities more closely...



Logic Flow between

Five (5) of the Major Programs

of Scientific Research @ TETRAD Institute

Physics & Maths (Fundamentals) [RTD]

 \rightarrow

Biological Sciences

(Theoretical & Molecular Biology) [TBD]

 \rightarrow

Psychosocioeconomics [PSD]

RTD+TBD + PSD

 \rightarrow

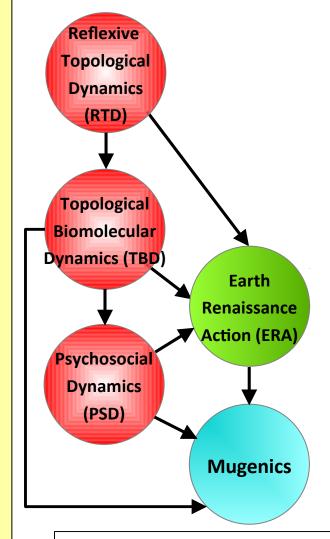
Environment, Ecosystems, Sustainability (ERA)

PSD + ERA

 \rightarrow

Earth+ Space Life Futures
Species Adaptability & Sustainability

(Mugenics)



Topology is about the "shape of things"

In our theoretical work, this led to discoveries about how certain principles and natural-order algorithms rule and govern at different scales of Nature. Our adherence to seeking out not only "new worlds to explore" but Relevant Applications that can serve useful, beneficial, sensible purposes, and a constant study of what is all around us in our own very human and social world, led us to constantly think about meaningful technological advances for Life on Earth and Life in Space.

Logic Flow between
Several Projects within the
Major Research Programs
@ TETRAD Institute (TI) and
@ Intelligence Renaissance Industries (IRI)

Biomolecular Communication & Control (BMCC)



[1] Autonomic Neurophysiological Control and Electrochemical Synergy (ANCES)



Neuroplex (NCAI; Neuro-Cardio-Autoimmune-Inflammation Dysfunctions through ANCES Disequilibrium)

+

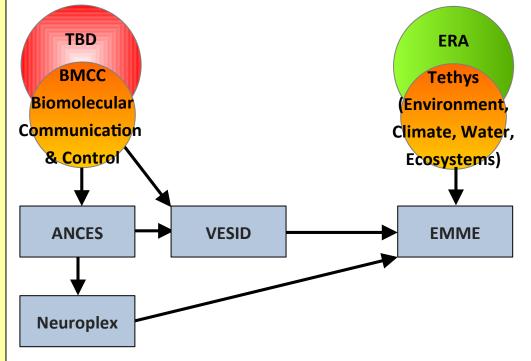
(2) Viral Entry Structural Integrity Disruption (VESID)

Environmental Monitoring and Predictive Analytics (Tethys)



EMME

(Environmental Monitoring of Migration and Mutation of Micro-organisms and Vectors for Early Warning of Risks for Emergent Zoonotic Disease with Epidemic/Pandemic Potential)



What is missing in this picture?

Central, and critical, to the tasks and the objectives of research + social application (medical, healthcare, environmental management, pubic health and safety) in both EMME and the Neuroplex work is the need, the role, the informational and social processes of obtaining data, sharing results, providing public information and education, that is an essential part of the "STEM transfer process from Research to Society.

A More Completed Logic Flow between

Several Closely-coupled and Interacting Projects
within the Major Research Programs

@ TETRAD Institute and IRI

Biomolecular Communication & Control (BMCC)



[1] Autonomic Neurophysiological Control and Electrochemical Synergy (ANCES)



Neuroplex (NCAI; Neuro-Cardio-Autoimmune-Inflammation Dysfunctions through ANCES Disequilibrium)

4

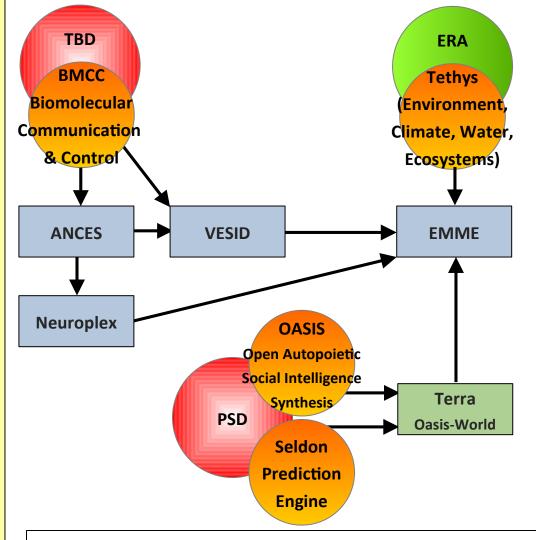
(2) Viral Entry Structural Integrity Disruption (VESID)

Environmental Monitoring and Predictive Analytics (Tethys)



EMME

(Environmental Monitoring of Migration and Mutation of Micro-organisms and Vectors for Early Warning of Risks for Emergent Zoonotic Disease with Epidemic/Pandemic Potential)



OASIS is the computational architecture providing the augmented-reality ("metaverse") environment and content management for communication, collaboration, and other social interaction, conducive and supportive of education, relaxation, and overall health and wellness for user-participants.

Seldon is the synthetic intelligence (SI) engine providing predictive and forecasting capabilities – it is the "prediction" complement of "search" engine functionality and value.

Critical Need for

Large-scale, diverse-population, multi-cultural
Health Informatics

(a type not existing in mainstream medicine and healthcare systems)

Integrating neurological, psychological, lifestyle

+ other behavioral & environmental factors along with traditional medical biometrics

+

Awareness of massive health disparities and inequalities among different racial and ethnic populations [**]

Dictated the need and the focus upon

PHIBER

(Population Health Informatics Biomedical Equity Resource)

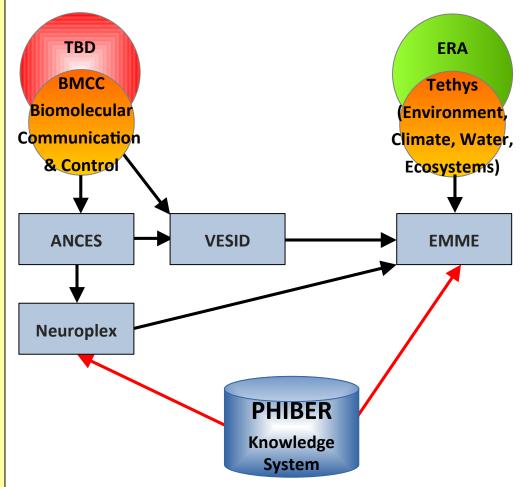
To serve and advance the Neuroplex research

+

Simultaneously, requirements within EMME including Awareness of massive disparities and inequalities in public health and epidemiological preparedness and response capabilities among different populations and nations [**]

Dictated the same needs for PHIBER

To enable and make possible an effective, practical and realistic EMME functionality



! Diverse mass-population Information is Critical!

[**] The basic awareness was not at all "new" but the severity and the increasing acceleration of the problems and the adverse consequences, particularly since the COVID-19 pandemic, have amplified the awareness and the pressing need for dramatic action and proactive change at all levels of society and within all sciences and health-related fields.

The Quintessential Question

How to most effectively, efficiently, expediently create a DATA STREAMING MACHINE that can acquire the massive and varied types of data required to build the data resources of a PHIBER knowledge system

+

and develop, refine, validate and support the synthetic intelligence (SI) capabilities for processing massive, disparate, incomplete, uncertain Data and transforming it into useful Information and ultimately practical Knowledge for the purposes of

Neuroplex-scope research leading to improvements in diagnostics and therapeutics and

EMME research leading to abilities to predict and circumvent emerging zoonotic diseases and other ecological threats

????

The Answer is in focusing and concentrating upon

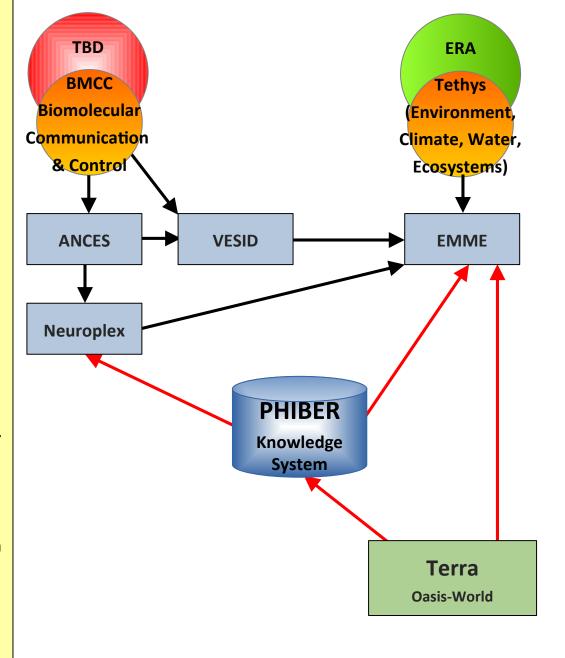
People

and

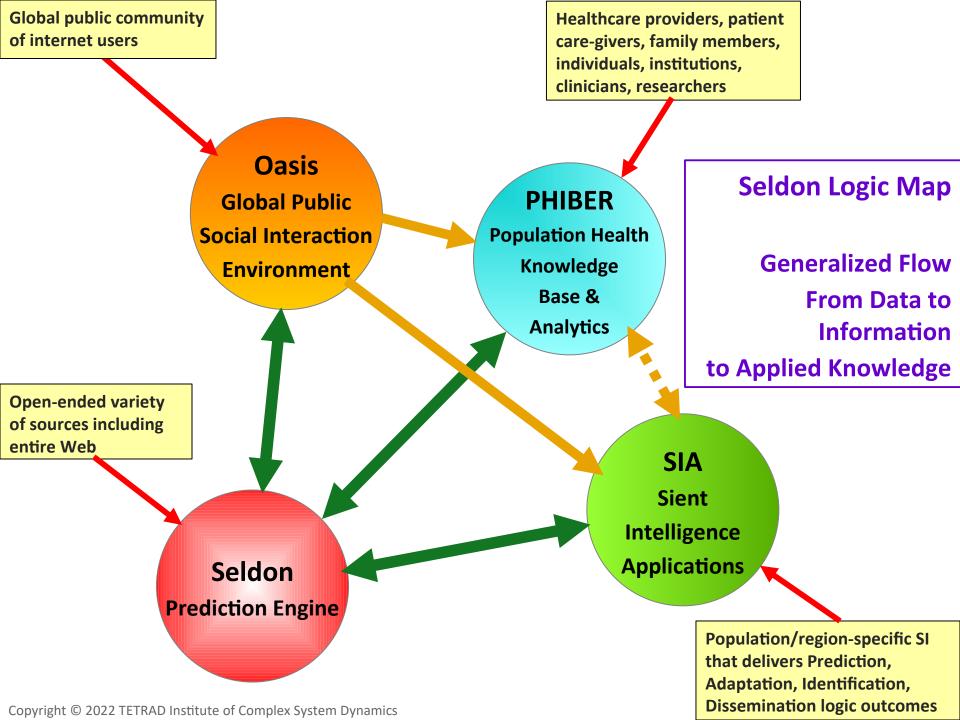
Social Communication, Interaction, Education

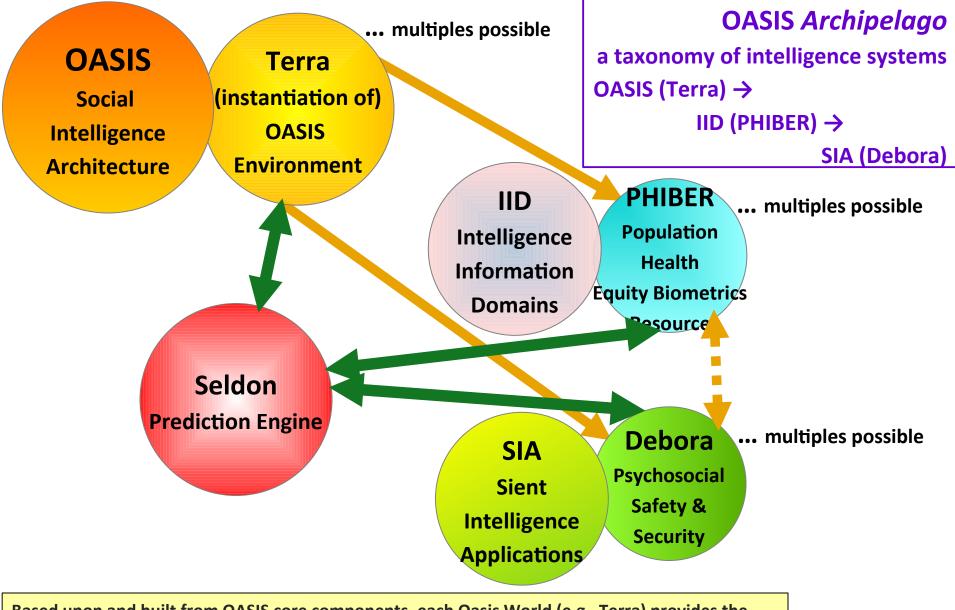
Using precisely the science and technology of contemporary mass-population media

Internet ♦ Web ♦ Social Media



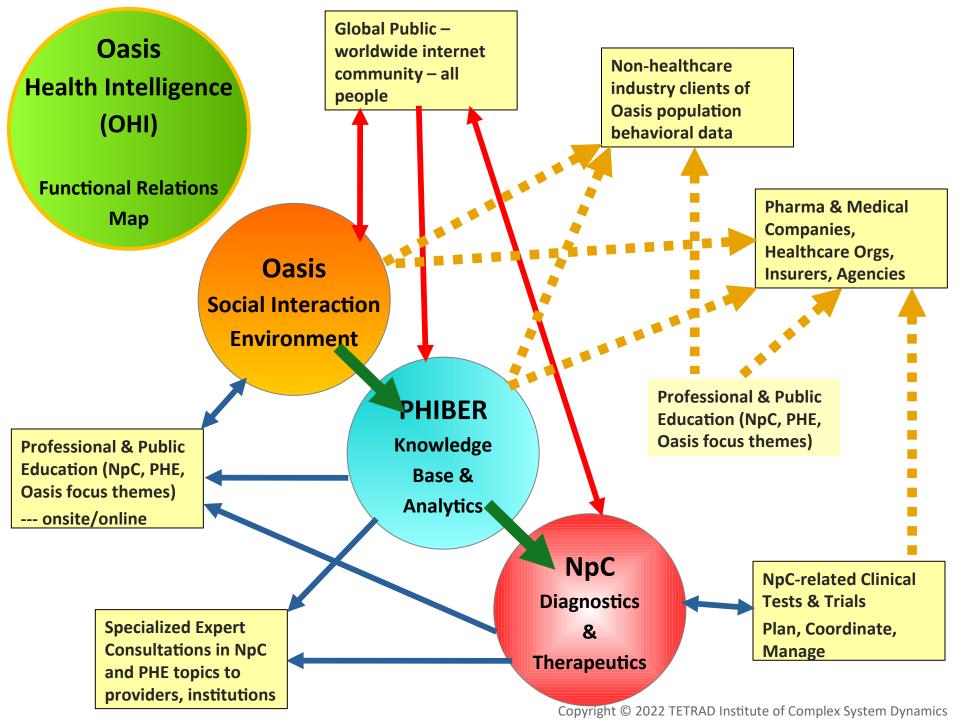
It is valuable to review and reflect upon the relationships and interactions among Key Data Flow and Knowledge Engineering Components that work together in an Organic Whole

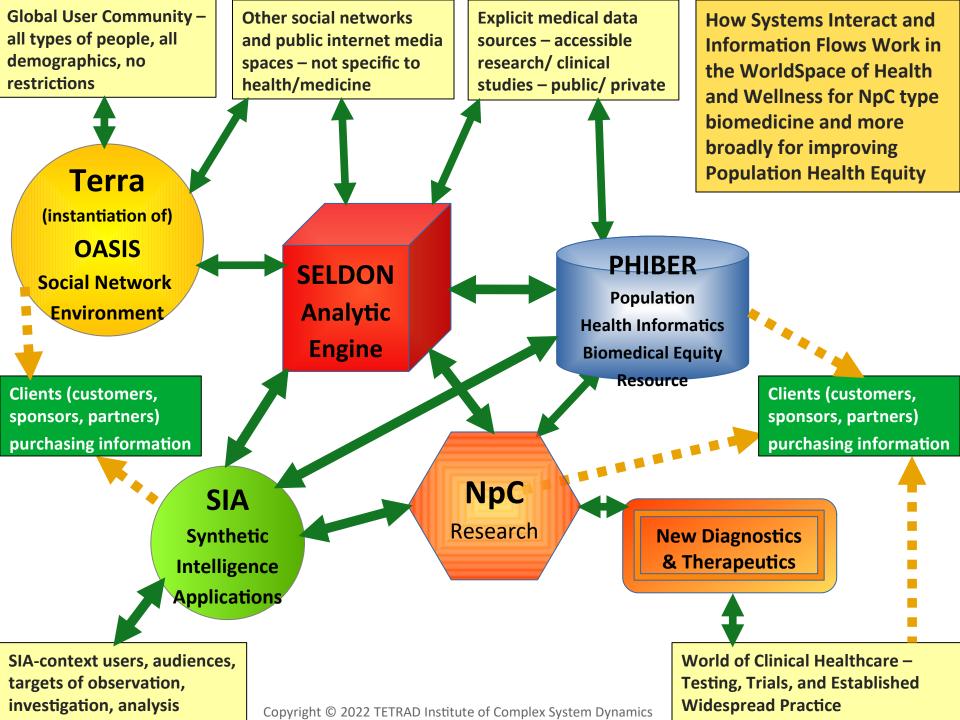




Based upon and built from OASIS core components, each Oasis World (e.g., Terra) provides the matrix for personal and interpersonal dataflow. This contributes (with many other data streams) to an IID (e.g., PHIBER) which has a domain focus (e.g., health). Together these work and work with SIA systems – applications such as Debora, each of which has a focus on a population type and specific attributes and their predictive (future-possible-likely) values.

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Social interaction framework (similar to Wordpress, FB, Twitter, LinkedIn, Tiktok, Baidu, generic CMS) ----

"Four dimensions" of UEX:

Linear (basic: text, shared media)

- 2D (graphical)
- 3D (navigable)
- 4D (true AR mixed RW + VW navigable spaces)_

Terra

(instantiation of)

OASIS

Social Network
Environment

Oasis World architecture:
Function Modules
(Core CMS Environment with plug-ins and interfaces)

- Communicating Dynamical Processes (CDP ← CSP)
- Network Computing
- Cloud and Mobile Services

Communicate

(~ WhatsApp, Telegram, Zoom, Meet) Collaborate/Meet (~ Slack, Discord, Zoom, Meet, Team) Educate

WordPress,

CMS / Wiki,

WebMD)

Entertain (Games: Build, Play) (~ Roblox, Minecraft) Trade (~ E-Bay, Amazon)

Open Street Maps

OSGEO
OpenSource GeoSpatial)

OpenSimulator (VR, AR)

Shares, Feeds, Notifications

Public Sites (~ WebMD, Mayo, NIH)

YouTube, Vimeo Partner/Client
Media/Promotions

Autopoietic
Social Intelligence
Synthesis
(logic architecture)

 $TI \rightarrow IRI \rightarrow open$ -use by world

Terra
(social world
instantiation of)
OASIS

IRI → licensable to others

Seldon Analytic Engine

TI + IRI → licensable to others

PHIBER Knowledge System

TI + IRI → data contracts to others

SIA
Synthetic
Intelligence
Applications

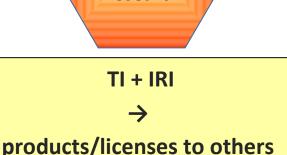
TI + IRI → data contracts to others

Who Builds What
In the world of
OASIS
Oasis Worlds like Terra
Seldon Engine
PHIBER and other IID
Domain-specific SIA
+ the medical world of NpC

Note that "TI+IRI" composite Includes formal project consortium members and partners

NpC "+"

Research



Now we can look at the more complete picture with a few more magical ingredients

One is a very particular app for Everybody

But we start with Big and Growing Problems

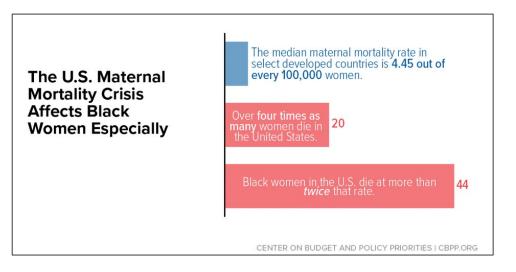
For Everyone

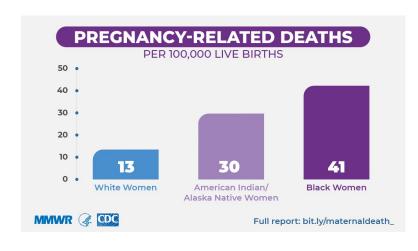
And then we look at some simple methods and tools for us to use

starting with

Women and Mothers at Risk

Just a few statistics tell a lot. The Problem runs deeper now, across all demographics, especially with the cardiac disease consequences of COVID-19 and PASC.

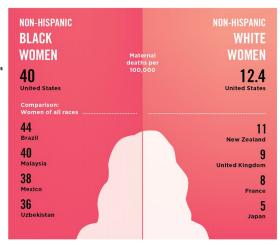


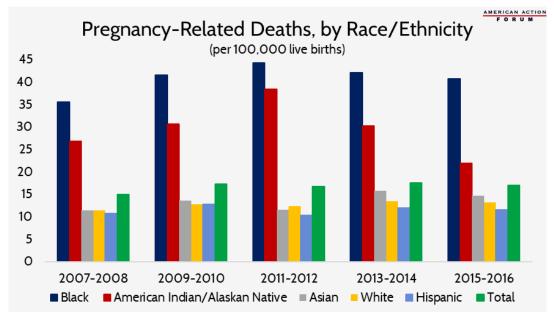


MORTALITY GAP For U.S. Moms

In the U.S., black women who are expecting or who are new mothers die at rates similar to those of the same women in lower-income countries, while the maternal mortality rate for white U.S. mothers more closely resembles rates in more affluent nations.

Sources: U.S. ratios (2011-2013): CDC Pregnancy Mortality Surveillance System; Global ratios (2015): UNICEF





Many people don't want to see images like these or to think about the problems and the consequences of problems like these - all the interconnects and interdependencies, all the consequences, and the accelerations of these *dis-orders* in our society of Today.

We cannot avoid this. It's in our work, on our minds. It makes us Think about much more than theories and finding causes, making experiments, calculating equations and writing papers. It is, after all, about *LIFE Itself*.



Thus, from all that deep research in so many spaces and places of mathematics, physics, and then theoretical biology and neuroscience,

We came up with some <u>Important Discoveries</u> and some <u>Tools and Methods</u>

THAT WORK FOR PROBLEMS

THAT ARE KILLING OUR PEOPLE

and putting our

SOUL(*) at risk

(*) Survival and sustainability of Organized Human Life

There is much more involved in the Social and Interactive Dimension for both

ANCES/Neuroplex medical problems & solutions

+

EMME type environmental, epidemiological, and socioeconomic problems and solutions

[1] Extraordinary, extreme, and accelerative social problems increase and exponentiate Neuroplex (NCAI) disorders and diseases

[2] Social infrastructure dysfunction and collapse in high-stress epidemic and pandemic situations (as demonstrated worldwide by COVID-19) give "positive feedback" to those same social problems.

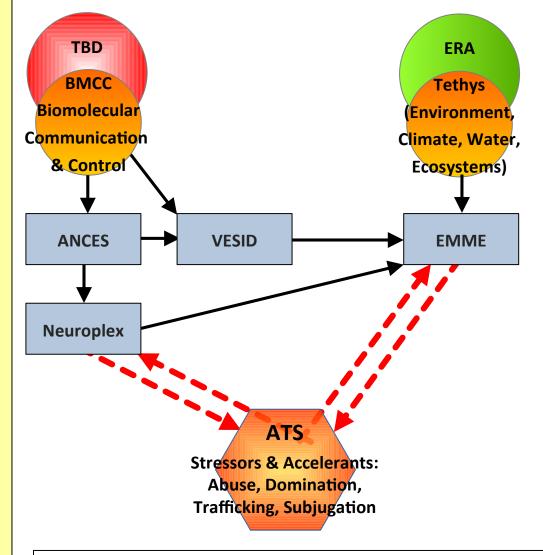
Neuroplex (NCAI) and EMME both lead into the Challenge of Addressing these extraordinary accelerators:

ATS – Abuse, Trafficking, and Subjugation behaviors, mechanisms, stressors, consequences and

Critical High-Negativity Social-Impacts such as

Widespread Racial-Ethnic

Population Health Disparities and Inequalities



Psychological + Physical Stressors wreak havoc and create positive feedback loops with negative consequences for a nervous system designed for much different and more harmonious living.

Thus, we must include addressing these stressors, too.

How to address such

Complex and Intertwined Problems?

How to achieve Real Positive Results

This leads straight to the heart of the

Social and Interactive Dimension

and the Power of

Simple Ubiquitous Communications

[1] FOCUS FIRST on a high-visibility, tangible, solvable problem that can produce solid Results, Gains, Successes for People and Communities

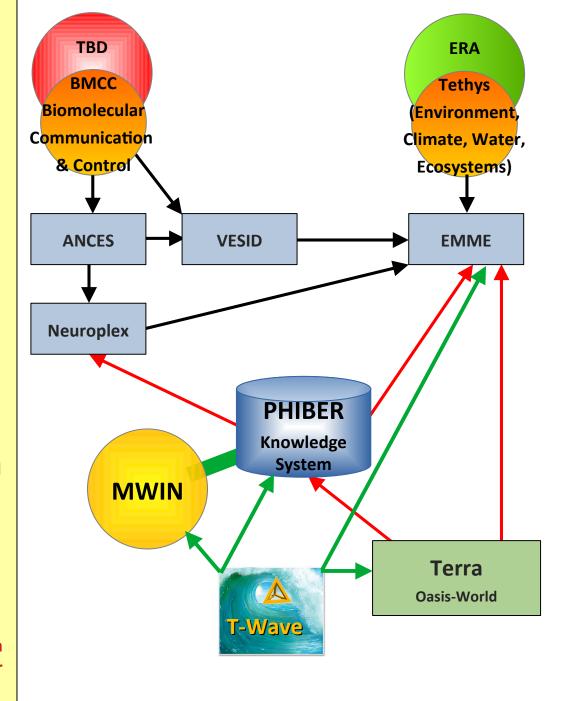
MWIN = Mothers WIN = going head-on with our collective repertoire of STEM & Genius Minds to produce Lives-Saving Results in Maternal Health

[2] Use the Power of Mobile Social Communications with the T-Wave App at the foreground and center of developing a Terra World, a "metaverse" world, that is directly focused upon health and wellness, informing and educating, uplifting and recovering, discovering and empowering – for everyone and anybody.

This is the path forward to Integrative Solutions that Work for People, for Science, for Business

and

This begins with Simple Services, Tools, and even Games for people to play and be healthier, wiser and happier



Finally, putting it all together,
After a lot of hard work
(and that never ends, really)

It is a very fine, wholistic, organic machine we have.

It works.

And it gets better with practice and exercise.





The Full Picture

of

Relations and Logic Flow

among

Several Research and Application Processes

Why and How these different research and application areas Fit together

Serve one another

Form a network of branches that share a common "trunk and root system"

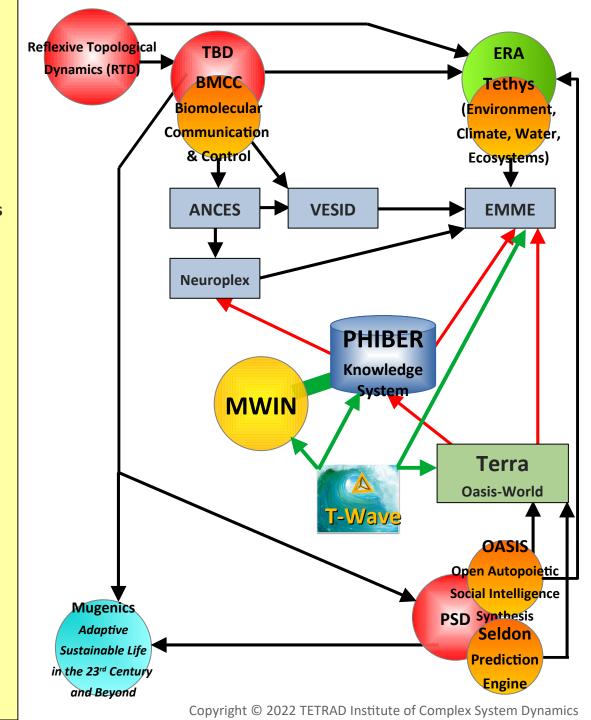
Support one another

Lead from one into the other and provide an Integrated System that serves both Fundamental Research and

Pragmatic Social, Economic Applications
Saving and Improving Lives
Generating Business Growth and Profitability
with a sound, organic, ethical
Strategy of Managing Capital

It starts with space, time and photons.

It leads to Better Ways to Live Together.





We have spent centuries with traditional, customary, conventional tools and methods. But they are not adequate, not capable, for Critical Tasks of Today and Tomorrow.



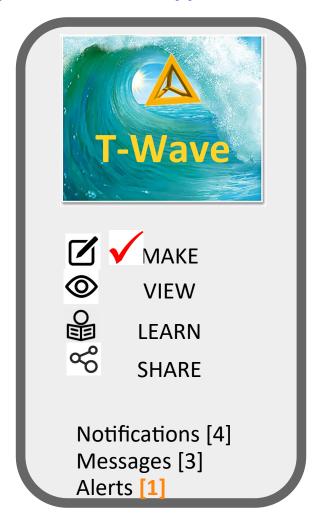
Fortunately, there are people who have discovered, refined, tested, and developed New Tools that will Work for what We All Need Now.

There is a NEW Way to Do Good Things and it is a New and Powerful WAVE



We call it T-WAVE. T for TERRA. T for the Terrain of Life. T for TETRAD.

And, yes, there is even an App. T-Wave is an App. Like no other.



T-Wave gets used in Everything that you have just read about And T-Wave is powered by *sients* like Debora. Working 7x24, brains with *Soul*, thinking for the Person's Good First.

Think about That...



And the Consequences of Doing Things Right, Now.



Prepared by Dr. D on the 16th of November, 2022, for Special Persons