

Desain “Action Plan” daripada Sinergi Pengembangan Sains dan Edukasi berbasis Knowledge

Nature Knowledge Indonesia (NKI) Work Group – Jakarta, Indonesia

1. Hub (Pusat) sumber produk-produk Inovasi dan Strategis bagi pengembangan Sains berbasis permodelan Knowledge Management (KM)

1.1. Mukadimah Pemahaman

The Secret of Competition :

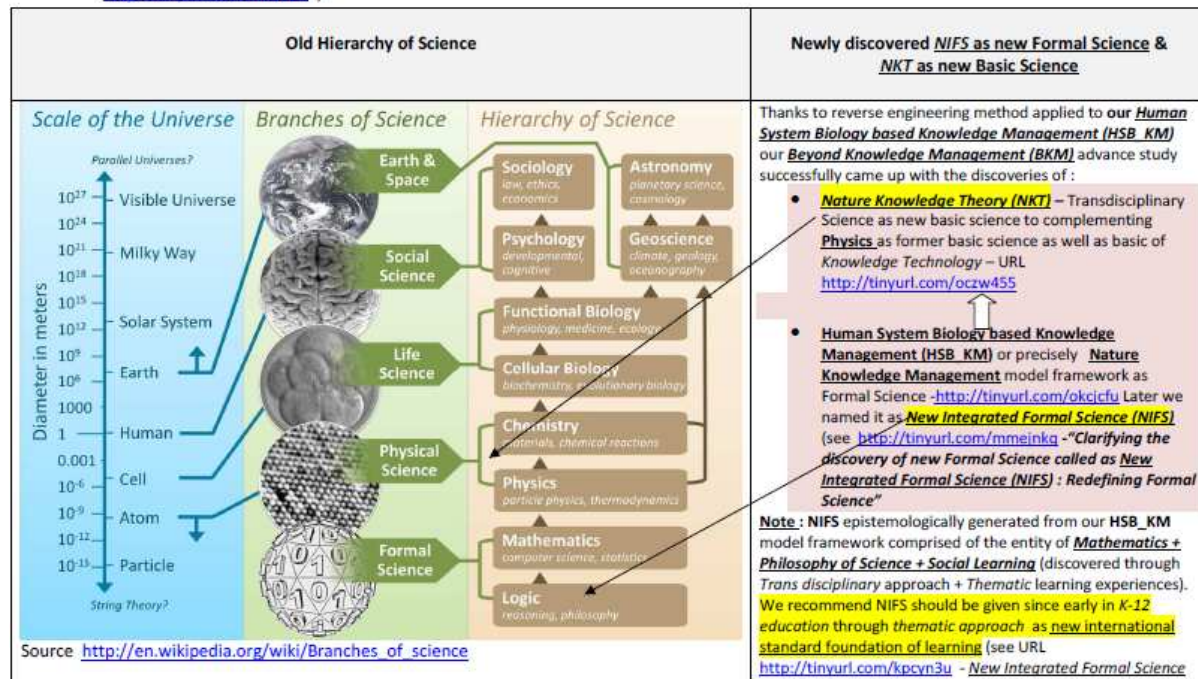
The Discovery of Nature Knowledge Theory (NKT)

Very secretive and comprehensive competition race really happened during the last decade among prominent scientists especially the physicists as well as the cognitive neuroscience experts in their quest to linking up Physics and Consciousness (or Physics encounters Consciousness) by means in truly science terms not regarded any more as metaphysics or pseudo science. As the attribute and embedded in Knowledge, *Consciousness* should be given widened meaning beyond *Data – Information – Knowledge – Wisdom* or *DIKW* continuum (within Nature Knowledge (NK) continuum, Human Knowledge (HK) or *DIKW* continuum is just part of NK continuum) and mixed up with *Matter* and *Energy* dynamic within one subject matter dramatically will redefine the future science. Those who win the competition by finding priorly the solution of the quest will dominate the road mapping of future science and technology considering the content discovered becoming strategic stuffs for multipurpose aspects in practice

Through our ***Human System Biology-based Knowledge Management (HSB_KM)*** framework model, we had been deeply involved in between 2008 – 2013 within our beyond Knowledge Management (BKM) advanced study to get succeeded in linking up Physics and Consciousness scientifically by means of ***Nature Knowledge Theory (NKT)*** discovery and its derivatives as **new basic science** complementing *Physics* within hierarchy of science. Further we had developed very systematic and innovative ***Science*** and ***Education*** action plan reform program including the guide and manual documents within national – regional – international level to get implemented in the near future to anticipate the importance of our discovery within global scalability

1.2. The Discovery - Penemuan Nature Knowledge Theory (NKT) sebagai Sains Dasar Baru dengan derifat-derifat (HSB_KM dan NIFS)nya (**THE VISION**)

3.2. **THE DISCOVERY OF HIDDEN BASIC SCIENCE DEDICATED TO THE SCIENCE OF 21ST CENTURY** - <http://tinyurl.com/oibu43f> & <http://tinyurl.com/lhst7b3>)



1.3. The Mission I'm possible (Action Plan)

Our Reform Program for Educators and Scientists (**THE MISSION**)

<p>Plan for K-12 and Higher Education incl Corporate learning</p> <ul style="list-style-type: none"> with <u>contextual learning</u> method principle - http://tinyurl.com/lvj2gz7 	<p>Plan for Global Academic Community</p> <ul style="list-style-type: none"> to disseminate globally our discoveries in new formal and basic sciences - http://tinyurl.com/moofsaf -“<u>DISCOVERY OF THE CENTURY</u>” (with <u>Trans Disciplinary approach and blended learning</u> method)
<ul style="list-style-type: none"> To provide Learning Strategies for K-12) and Higher Education (Campus Learning) 	<ul style="list-style-type: none"> Center for Trans Disciplinary Learning (TDL Center)
<ul style="list-style-type: none"> To encourage Corporate Learning Achievement 	<ul style="list-style-type: none"> Center for Beyond Knowledge Management Advance Study (BKM_AS Center)
<ul style="list-style-type: none"> To develop Mobile Technology for Learning 	<ul style="list-style-type: none"> Center for Development of Philosophy of Science 3.0 (PS 3.0 Center)
	<ul style="list-style-type: none"> Institute for Advance Study of Nature Knowledge Theory (IAS_NKT Center)

1.4. The Planning Map : (The Strategy of Action Plan)

Cutting Edge Guide to Win Global Competitiveness : Knowledge Management modelling based Science - Technology development

- URL <http://tinyurl.com/oo4rokr>

(THE NEW PERSPECTIVE IN SCIENCE IS COMING -> Embrace the planning map of our newly discovered Formal Science and Basic Science)

The needs of re-education program for K-12 and Higher Education communities

The discoveries of *Nature Knowledge Theory* (NKT) as new basic science as well as *New Integrated Formal Science* (NIFS) as new formal science within hierarchy of science ("pohon pengetahuan") giving us totally new perspective on how we look at science and technology development in the future namely in the process of getting shifted on paradigm of science from *Solar System Oriented era* (Millennium Two era) toward *Interstellar Galactic era* (Millennium Three era). Needs for re-education program of K-12 and Higher Education communities should get implemented in the very near future soon

TOTALLY NEW PERSPECTIVE! : Pedoman baru menuju Sains Masa Depan (Kesimpulan diskusi prospek Knowledge Management) - URL http://tinyurl.com/n46lwp7	<i>Toward Knowledge Management driven New Era of Sci-Tech : Discussion with Ministry of Research & Technology and the University of Indonesia</i> - URL http://tinyurl.com/nweamuji		
	<i>Referensi Umum Materi Pembekalan Pelatihan Komunitas Pendidikan K-12 & DiKti berbasis "Knowledge Management (KM) driven Nature Knowledge Theory (NKT)"</i> - URL http://tinyurl.com/limbowl (UMUM : dengan Appendix dan Additional References)		
	<i>Referensi Umum Materi Pembekalan Pelatihan Komunitas Pendidikan K-12 & DiKti berbasis "Knowledge Management (KM) driven Nature Knowledge Theory (NKT)"</i> - URL http://tinyurl.com/purq325 (KHUSUS : Sumber – sumber referensi penting dan Pedoman orientasi pelatihan SMK)	<i>Proposal : Pelatihan Strategi Pembelajaran Tematik melalui Sains Formal Terpadu Baru (SFTB) atau New Integrated Formal Science (NIFS) – Untuk guru-guru pedesaan dan perkotaan</i> - URL http://tinyurl.com/ozaz2anv	<i>Pedoman : Pelatihan Memahami Tren dan Paradigma Sains Formal Baru menggunakan Metoda Pembelajaran Baru Tematik</i> http://tinyurl.com/mer8acp

2. Wadah Komunitas Kebangsaan

2.1. Sumber Inovasi untuk Fondasi Keunggulan dan Daya Saing Bangsa

FONDASI KEUNGGULAN & DAYA SAING BANGSA

- **Discovery of New Basic Science and New Formal Science :**
Nature Knowledge Theory (NKT) and New Integrated Formal Science (NIFS) - <http://tinyurl.com/moofsaf>
- **Invention of NKT based New Standard Model of Particle Physics** - <http://tinyurl.com/mkwcpqp>
- **Mission of Nature Knowledge Consortium for International Development (NKCID)** – Indonesia - <http://tinyurl.com/qj29anv>
- **Guide to Methodology of Future Science** - <http://tinyurl.com/qbfx5vu>



2.2. **Knowledge – based PANCASILA** - (Sumber **GUIDE TO INDONESIA FIVE PRINCIPLES**
LEARNING : KNOWLEDGE MANAGEMENT BASED PANCASILA COMPREHENSION -
<http://ow.ly/QQZPy>)

<p>The Five Principles (Pancasila) of Indonesia related with Knowledge Management framework model</p>	<p>KEBUTUHAN JASMANI / FISIK / LAHIRIAH (HUMAN BEING) – BODY</p> <p>Social justice for the whole of the people of Indonesia <i>Keadilan Sosial bagi Seluruh Rakyat Indonesia</i>: This principle calls for the equitable spread of welfare to the entire population, not in a static but in a dynamic and progressive way. This means that all of the country's <u>natural resources</u> and the national potentials should be utilized for the greatest possible good and happiness of the people. Social justice implies protection of the weak. But protection should not deny them work. On the contrary, they should work according to their abilities and fields of activity. Protection should prevent willful treatment by the strong and ensure the rule of justice. This is symbolized by the paddy and cotton ears</p>	<p>KEBUTUHAN AKAL SEHAT / BATINIAH (COMMON SENSE) – MIND</p> <p>Just and civilized humanity <i>Kemanusiaan yang Adil dan Beradab</i>: This principle requires that human beings be treated with due regard to their dignity as God's creatures. It emphasizes that the Indonesian people do not tolerate physical or spiritual oppression of human beings by their own people or by any other nation. The chain at the lower right of the shield symbolizes successive generations of humanity</p> <p>The unity of Indonesia <i>Persatuan Indonesia</i>: This principle embodies the concept of <u>nationalism</u>, of love for one's nation and motherland. It envisages the need to always foster national unity and integrity. Pancasila nationalism demands that Indonesians avoid feelings of superiority on the grounds of <u>ethnicity</u>, for reasons of ancestry</p>	<p>KEBUTUHAN HATI NURANI / LAHIAH (SPIRITUAL BEING) – SOUL / SPIRITUAL</p> <p>Democracy guided by the inner wisdom in the unanimity arising out of deliberations amongst representatives <i>Kerakyatan yang Dipimpin oleh Hikmat Kebijaksanaan dalam Permusyawaratan/Perwakilan</i>: Pancasila democracy calls for decision-making through deliberations, or <i>musyawarah</i>, to reach a consensus, or <i>mufakat</i>. It implies that voting is not encouraged as long as deliberation is possible. It is <u>democracy</u> that lives up to the principles of Pancasila. The head of the wild bull at top left stands for this sila.</p> <p>Belief in the oneness and only God <i>Ketuhanan yang Maha Esa</i>: This principle emphasizes belief</p>
	<p>on the shield.⁴¹</p>	<p>and skin color. In his 1 June 1945 speech, Sukarno quoted Gandhi: I am a nationalist, but my nationalism is humanity.⁴² The Indonesian coat of arms enshrines the symbol of "<i>Bhinneka Tunggal Ika</i>" which means "unity in diversity". This is represented on the shield by the banyan tree at top right.</p>	<p>in <u>God</u>. It also implies that the Indonesian people believe in <u>life after death</u>. It emphasizes that the pursuit of sacred values will lead the people to a better life in the hereafter. The principle is embodied in the 1945 Constitution and reads: "The state shall be based on the belief in the one and only God". It is represented by the star in the center of the shield of the Garuda Pancasila</p>

Revisi dan penyempurnaan – Juli 2014

3. Sebagai sumber perubahan – perubahan Inovatif Pendidikan (Edukasi)

3.1. **We push New Trend in Global Education** : **ORIENTISM** adalah instructional learning strategy design baru hasil riset pendidikan (2011 – 2014) kerjasama antara kami (Indonesia) dengan Italia dengan menggunakan permodelan kerja Knowledge Management (KM) kami sebagai basisnya

NEW TREND IN EDUCATION! : The Knowledge Strategy

❖ NEW ADVANCED KNOWING METHOD IN KNOWLEDGE ACQUISITION BY MEANS TO ADDRESSING THE UNPREDICTABLE ERA WITH LEARNING STRATEGIC REFORM

(Transdisciplinary approach – Thematic and Contextual thinking – Evidence based Research – Blended learning)

KNOWLEDGE ACQUISITION	KNOWING METHOD
<ul style="list-style-type: none"> Knowledge Production 	<p>Know What learning (Behaviorism) & Know How learning (Cognitivism) + e-learning (emphasized on Multi Media) = Constructivism</p>
<ul style="list-style-type: none"> Knowledge Configuration (within linear / low complexity / predictable learning environment) – until the end of 20th century 	<p>Constructivism + Social Media platform (Connectivism / Collaboration + Navigationism / Interaction) = Social Learning or Social Constructivism (Know Where learning)</p>
<ul style="list-style-type: none"> Advanced Knowledge Configuration (within nonlinear / high complexity / exponential / unpredictable environment) – beginning 21st century 	<p>ORIENTISM (advanced Know Where learning) : <i>Luisa dall' Acqua, Md Santo</i> (2014) : <i>Human System Biology-based Knowledge Management (HSB_KM)</i> driven new theoretical frame of reference, design with focus to orient people to manage unpredictable learning environment. PENTHA MODEL vs 2 is Orientism's Instructional Design Model</p>

3.2. **Kami sangat adaptif dengan evolusi pembelajaran sebagai dampak discovery NKT kami**

Knowledge based global trend in learning strategy evolution :

The learning ecosystem toward revealing Dark Matter through Nature Knowledge Theory (NKT)

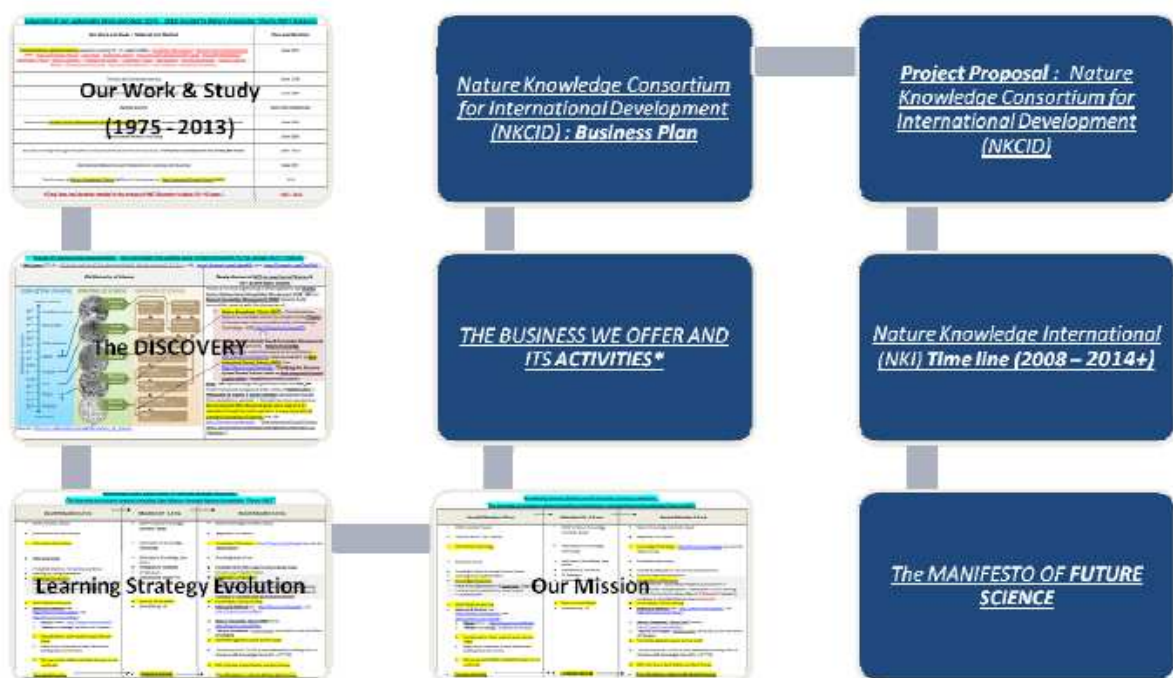
Up until Education 1.0 era	Education 2.0 – 3.0 era	Beyond Education 3.0 era
<ul style="list-style-type: none"> DIKW oriented / based Until the end of 20th Century Information Technology Data base driven Probability (Math as Formal Science) driven Learning by Doing domination Knowledge Production : Know What (Behaviorism) & Know How (Cognitivism) + e-Learning (emphasized on Multi Media) = Constructivism Multi Media /e-learning Material & Method (see http://tinyurl.com/iwqo9yh and http://tinyurl.com/cmsf6sg) : <ol style="list-style-type: none"> Physics driven - http://tinyurl.com/n2kh4sm "Matter and Energy" as fabrics of Universe Interplanetary (solar system) space domain origin Higgs boson supposed as basic elementary building block of Universe The key to Dark Matter and Dark Energy not yet confirmed Conceptual learning 	<ul style="list-style-type: none"> DIKW to Nature Knowledge oriented / based Information to Knowledge Technology Data base to Knowledge base driven Probability to Possibility (in between) (transitioning toward →) Multi to Social Media (transitioning →) Contextual learning 	<ul style="list-style-type: none"> Nature Knowledge oriented / based Beginning 21st Century Knowledge Technology - http://tinyurl.com/q4ggyvb (see also the Attachments) Knowledge base driven Possibility (HSB_KM as new Formal Science) driven Doing by Learning domination Knowledge Configuration : Constructivism + Social Media Platform (Connectivism / Collaboration + Navigationism / Interaction) = Social Learning = Social Constructivism (Know Where) → Orientism* applied to nonlinear or unpredictable learning environment Social Media /Social Learning Material & Method (see http://tinyurl.com/iwqo9yh and http://tinyurl.com/cmsf6sg) : <ol style="list-style-type: none"> Nature Knowledge Theory (NKT) driven - http://tinyurl.com/n2kh4sm "Nature Knowledge" (consciousness attributed) as the third fabric of Universe Interstellar (galactic) space domain origin "duo-entity-force" or DEF as basic elementary building block of Universe with Knowledge Value (KV) = 10⁻³⁸ CEF DEF is the key to Dark Matter and Dark Energy Trans Disciplinary method with blended learning

3.3. Tahapan – tahapan R&D kami dalam selang waktu kurang lebih 40 tahun (1975 – 2013) sebagai sumber referensi metodologis riset inovatif dibidang Sains dan Edukasi dalam upaya menemukan (discovery) Nature Knowledge Theory (NKT) dan derifat – derifatnya sebagai Sains Dasar baru yang tersembunyi dalam hirarki sains selama 3 abad sejak abad 17 (mulainya era Newton)

Sequential of our sustainable Work and Study (1975 – 2013) needed to Nature Knowledge Theory (NKT) discovery

Our Work and Study : Material and Method	Time and Duration
Transdisciplinary approach learning needed to covering 10 – 15 subject matters : <u>Knowledge Management – Business Process Reengineering (BPR) – Astro and Particle Physics – Cosmology – Complexity Theory – Non Linear and Chaotic Dynamic study – Research Methodology – Information Theory – Math & Statistics – Philosophy of Science – Theoretical Physics – Neuroscience – NeuroOphthalmology – Cognitive Science – Biology – Organizational Learning – Community Development – Anthropology – Educational Psychology</u>	Since 1975
Thematic and Contextual learning	Since 1990
Knowledge (K) and Knowledge Management (KM) study	Since 1990
Blended learning	Since 1995 (Internet era)
The practice of <u>Human System Biology-based Knowledge Management (HSB_KM)</u> framework model in our services and consultancies	Since 2005
Evidence based Research and Study	Since 2008
Beyond Knowledge Management (BKM) or beyond DIKW based KM advanced study : <u>Verification and Empiricism era of HSB_KM model</u>	2008 - 2013
International Networking and Collaboration in Learning and Education	Since 2011
The Discovery of <u>Nature Knowledge Theory (NKT)</u> and its derivatives incl. <u>New Integrated Formal Science (NIFS)</u>	2013
#Total time and duration needed in the process of NKT Discovery is about 35 – 40 years !	1975 - 2013

APENDIK 1 : Kesiapan kami saat ini bila diproyeksikan menjadi program **Nasional Sains & Edukasi**



Apendik 2 : PENJELASAN “PENEMUAN SAINS DASAR BARU BERBASIS KNOWLEDGE MANAGEMENT SEBAGAI FONDASI STRATEGIK KETAHANAN BANGSA – DAYA SAING – EKONOMI INOVATIF”

- Penemuan (discovery) Sains Dasar Baru berbasis Knowledge Management (KM) yakni ***Nature Knowledge Theory (NKT)*** dan ***New Integrated Formal Science (NIFS)*** sebagai Formal Sains Baru hasil dari redefinisi Formal Sains lama pada hirarki Sains adalah hasil studi transdisipliner kami sejak tahun 1975 yang dilanjutkan dengan riset khusus 5 tahun (2008 – 2013) kami dengan subyek ***Human System Biology-based Knowledge Management (HSB_KM)*** sebagai permodelan kerja (framework model) dan disebut sebagai “*beyond Knowledge Management (BKM) advanced study*”. Pada esensinya model HSB_KM berbasis pendekatan studi *Cognitive Science*, *Neuroscience* dan *Psikologi* dengan pertimbangan bahwa kesadaran (consciousness) adalah atribut daripada Knowledge. Penemuan NKT yang perannya mengkomplementasikan sains dasar sebelumnya yakni Fisika dan Kimia dalam mengembangkan sains kami yakini akan berperan sebagai fondasi pembaharuan Sains global kedepan setelah Ilmu Pengetahuan (Sains) berkembang sejak abad 17 (era Newton)
- Penemuan (discovery) ***Nature Knowledge Theory (NKT)*** dan ***New Integrated Formal Science (NIFS)*** pada hirarki Sains oleh anak bangsa Indonesia tsb sangatlah strategis sebagai kesatuan (entitas) daripada ***FutureScience™*** yang akan me-redefinisi arah IpTek (Sci Tech) global dan juga merupakan **VISI dan MISI** baru dibidang *Sains* serta *Edukasi* kedepan sekaligus menterjemahkannya sebagai **fondasi strategik untuk Ketahanan Bangsa – Daya Saing – Ekonomi Inovatif** (sebagai catatan, dunia internasional mengakui bahwa Ekonomi Inovatif adalah penentu daya saing dan ketahanan bangsa)
- Berikut ini adalah dokumen – dokumen produk knowledge terkini kami yang diperlukan untuk menjelaskan dampak – dampak dasar penemuan (discovery) tsb :
 1. **MANIFESTO OF FUTURE SCIENCE** – URL <http://tinyurl.com/pdda2pz>
 2. **Syllabus for Public – Educators – Scientists : Brief Introduction to Nature Knowledge Theory** - <http://tinyurl.com/nsw6em9>
 3. **Newly Integrated Formal Science (NIFS) or Sains Formal Terpadu Baru (SFTB) as new paradigm for K-12 education** – <http://tinyurl.com/oc4h9f5>
 4. **Proposal : Pelatihan Strategi Pembelajaran Tematik melalui Sains Formal Terpadu Baru (SFTB) atau New Integrated Formal Science (NIFS) – Untuk guru-guru pedesaan dan perkotaan** – <http://tinyurl.com/oza2anv> & **Tren baru mengajar guru – guru pedesaan dan perkotaan** (ppt) (belum dipublikasikan)
 5. **Objective dan Outline untuk pelatihan para guru / pendidik dengan tema New Integrated Formal Science (NIFS) atau Sains Formal Terpadu Baru (SFTB)** sebagai tambahan penjelasan butir 3 dan 4 diatas (belum dipublikasikan)

6. **Sequential of our sustainable Work and Study (1975 – 2013) toward Nature Knowledge Theory (NKT) discovery** - <http://ow.ly/PtIWR>
7. **The Current and the Next Knowledge Management trend** - <http://ow.ly/PRDHC>
8. **The next 4th era of Knowledge Management comes more naturally** - <http://ow.ly/Qnupt>
9. **Guide to the 4th Era of Knowledge Management (KM driven new era of Science)** - <http://ow.ly/QZqc3>
10. **JOIN OUR SCIENCE AND EDUCATION REFORM BY REPLACING THE BIGBANG WITH THE BIGBLOW UNDERSTANDING - Knowledge Management consciousness is the living key toward future Science and Education** - (belum dipublikasikan)

APENDIK 3 : Tiga dari banyak testimonial dan/atau tanggapan atas kerja kami antara 2010 - 2015

- 1) **On our Human System Biology-based Knowledge Management (HSB_KM)** : (2010)



At 5:54am on September 15, 2010, **Paulette H DeGard** said...

Md Santo,

I was intrigued by the message I got from KM Edge Group about your analogy of the human body genome with corporation KM. I wrote a paper back in 1999 along the same lines except I was comparing KM to the major systems of the body. If you like, I would be happy to send you a copy of the paper. It was submitted and accepted at a UK conference.

Regards,

Dr. Paulette DeGard

The Boeing Company - **Knowledge Strategist**

Seattle, WA, USA

2) On our Nature Knowledge Theory (NKT) : (2013)



• Technology and Engineering Education, Research Integrated Institution(TERII)
at Technology and Engineering - India

Narendra Nath

Many a new ideas are difficult for conformist to accept. I am happy to note that that your ideas are getting the attention gradually. Slow and Steady wins the race, no hurry. Please continue to deepen your own works, best wishes

Narendra Nath

December 9, 2013

3) On our NKT paper "Most likely trend : The BIGBLOW vs The BIGBANG" (2015)

peter lovasz likes this



Peter Lovasz – August 10, 2015

Profesor ,and mathematical developpe,Computing Science at General School Budesti Mures County,
Romania

Peter Lovasz

Congrats Your work !

@Md Santo – August, 2015



With regard to our action plan, those who want to join us to get networked and collaboration → feel free to contact : Dr Md Santo (a.k.a. Moesdar Santo) : Knowledge Management (KM) & Organizational Learning (OL) consultant and researcher - Founder of social networking site (SNS) *MOBEE* *KNOWLEDGE CoP & Nature Knowledge Indonesia (NKI) Work Group* – e-mail : moesdar@gmail.com - Tel. [+62 21 8354691](tel:+62218354691) - Mobile [+62 88210817549](tel:+6288210817549) – Knowledge repository <http://mobeeknowledge.ning.com> Twitter http://twitter.com/md_santo - Profile at LinkedIn <https://id.linkedin.com/in/bluemoonmabee> - Recognized as **"2013 Top 100 Influencers in Knowledge Management"** (*MindTouch*, USA) – Associate member of *Beyond Knowledge Management Advanced Study* at *CK4BC-SBM-ITB*, Bandung – Indonesia