Thoughts for a complementary view to the Classic Economic Mindset

Peter Bretscher © 2012

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- Updates and further information see: http://bengin.net/12/ickc_e.htm

Agenda

- Peter Bretscher
  Practical need for model that integrates intangibles
- Findings & Project
- 3 Levels of Enterprise
- Values, Visuals & Framework beyond Smith & Co
- Links

PETER BRETSCHER, PRACTICAL NEED FOR MODEL THAT INTEGRATES INTANGIBLES

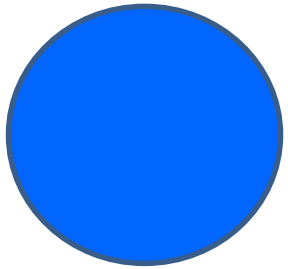
- Professional Mechanician (Handwork)
- Professional Engineer (Mindwork)
  (R&D, Production, Marketing, IP-Rights,
  transdisciplinary trouble-shooting, special tasks....)
- **Δ between real live and (business) theory**
- Technology & Knowhow Transfer

  - no books, no theory, no best practise....

  - need for inventing a model realize T'Transfer
  (one that includes knowledge and other intangibles)

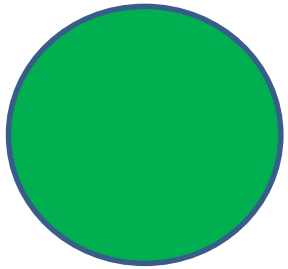
Obstacles – why?

World 1



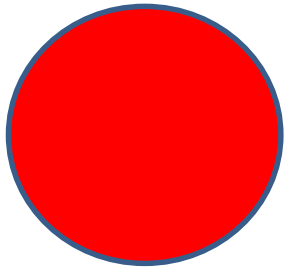
real reality

World 2



experienced reality

World 3

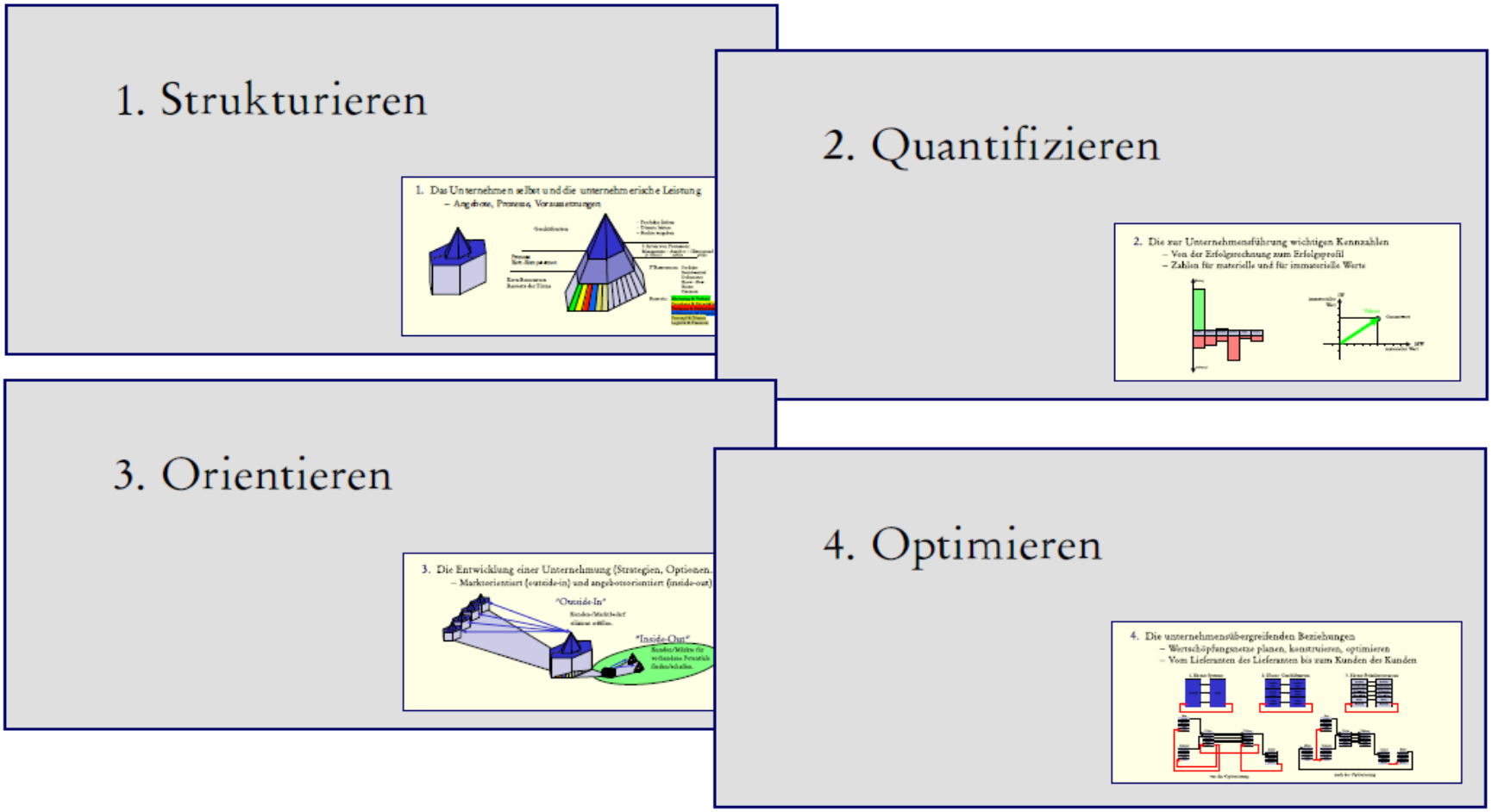


explained reality

FINDINGS & PROJECT

1. Bottom up structuring reality, 3D-Models

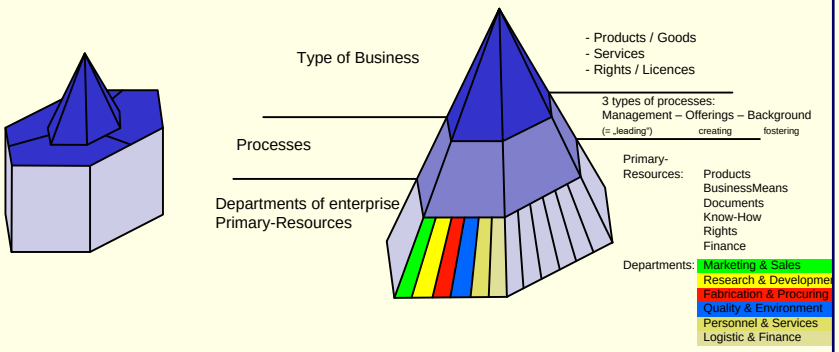
2. Metrics that enables quantifying subjective dimension of value



Four main views

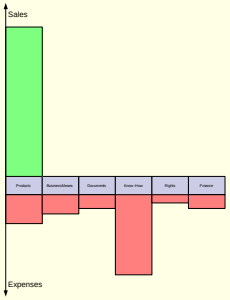
1. Structuring the Elements of a Corporation

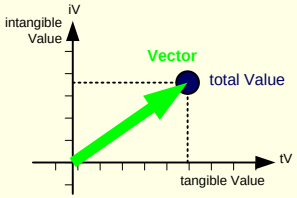
Three levels: Offerings, Processes, Prerequisites



2. Quantifying means (numbers and indicators)

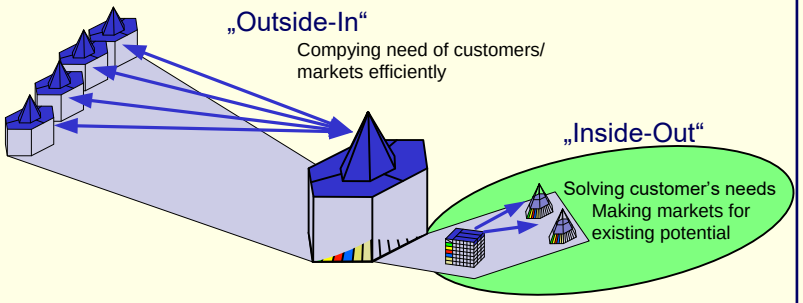
- from P&L account to the P&L profile
- numbering system for tangible and intangible values





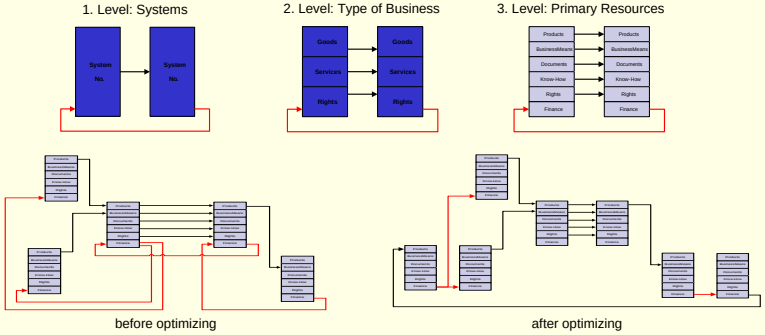
3. Development of Enterprise (Strategies, options....)

- Market-oriented (outside-in) and offerings-oriented (inside-out)



4. Closed Loop Business Relations

- planning, design, optimize Value Adding Net [VAN], beyond borders
- from the supplyer of the supplyer to the customer of the customer



- Economic theory is a product, a tool that no longer fits the needs.
- Task
  Develop a new theory from bottom up that includes (tangible and intangible assets) and that makes subjective valuation quantifyable.

- Huge preliminary work
  3D Models, 300 GB
  Registered Copyright

(open)

INSEDE

R&D

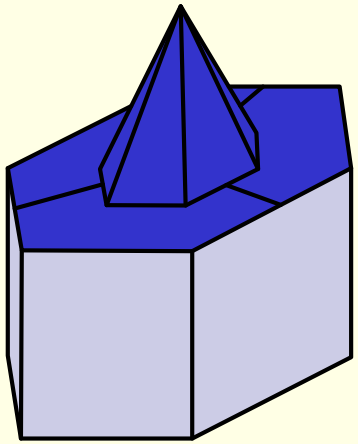
Next economic reasoning system

INSEDE
(open) Institute for Sustainable Economic Development

3 LEVELS OF ENTERPRISE

1. Structuring the Elements of a Corporation

Three levels: Offerings, Processes, Prerequisites



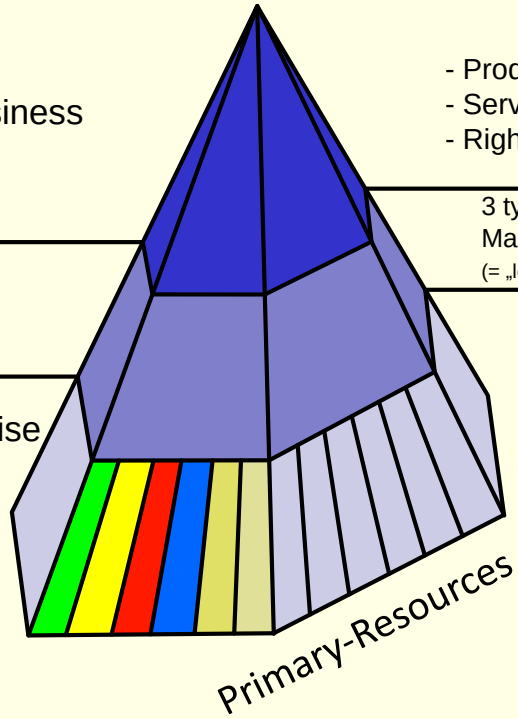
Type of Business

- Products / Goods
- Services
- Rights / Licences

Processes

3 types of processes:
Management – Offerings – Background
(= „leading“) creating fostering

Departments of enterprise
Primary-Resources



Primary-Resources:
Products
BusinessMeans
Documents
Know-How
Rights
Finance

Departments:
Marketing & Sales
Research & Development
Fabrication & Procuring
Quality & Environment
Personnel & Services
Logistic & Finance

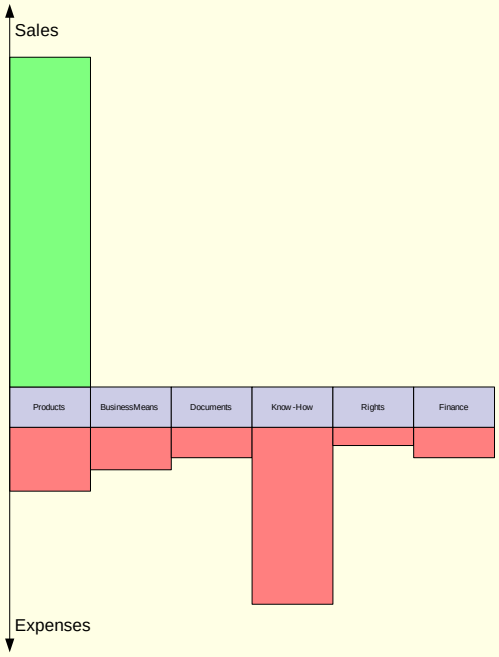
Vector Type 1

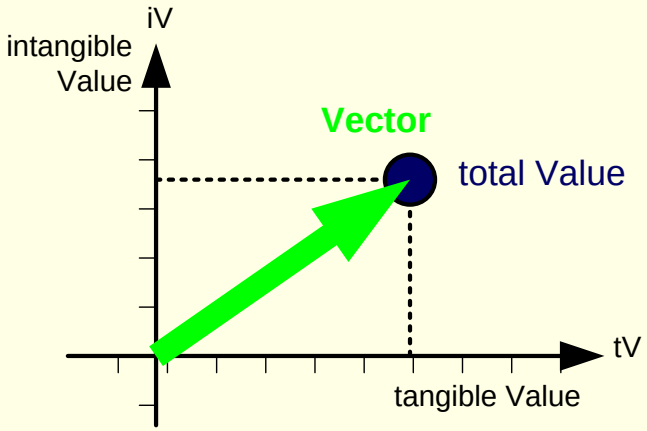
VALUES, VISUALS & FRAMEWORK

BEYOND SMITH & CO

2. Quantifying means (numbers and indicators)

- from P&L account to the P&L profile
- numbering system for tangible and intangible values





Vector Type 1

Enterprise

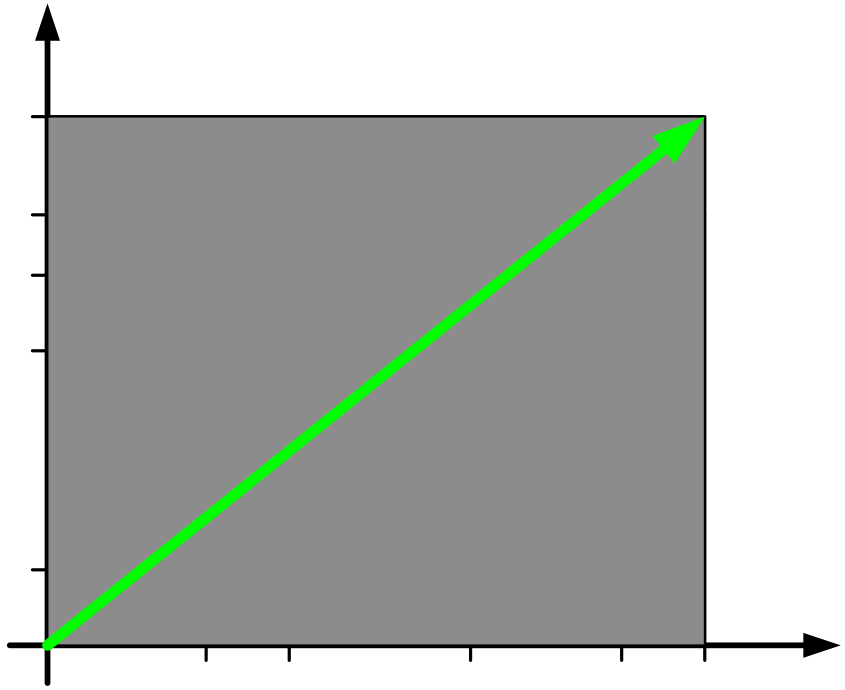
Metrics

Quantitative metric

Objective metric

Qualitative metric

Subjective metric



Units

gallons

%

i$

$

pounds

squaremeter

meter

sec

manhour

Number of pieces

Peter Bretscher www.bengin.com – peter.bretscher@bengin.com

Vector Type 1

Clusters

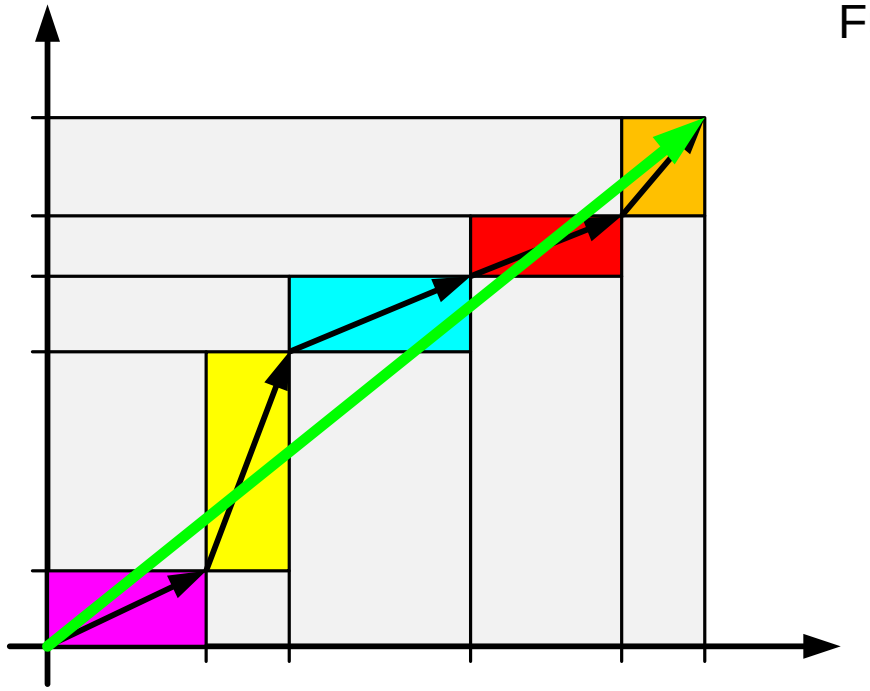
Metrics

Quantitative metric

Objective metric

Qualitative metric

Subjective metric



Functional departments

Business units

Countries

Products

Sales regions

Balanced Scorecard

Units

gallons

%

i$

$

pounds

squaremeter

meter

sec

manhour

Number of pieces

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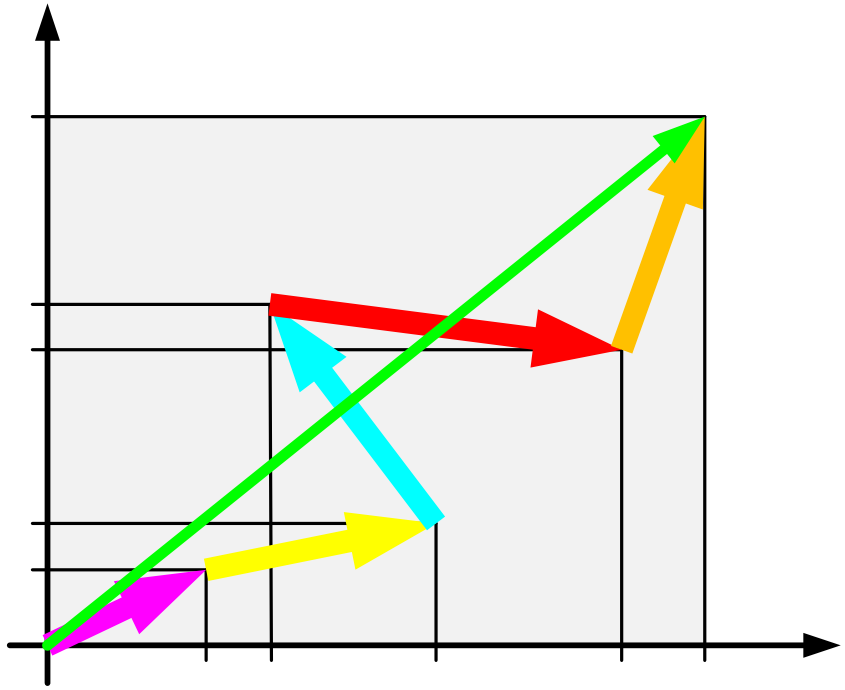
Vector Type 1

No rectangle

For more complex visualizations
For comparison with other vectorprofiles



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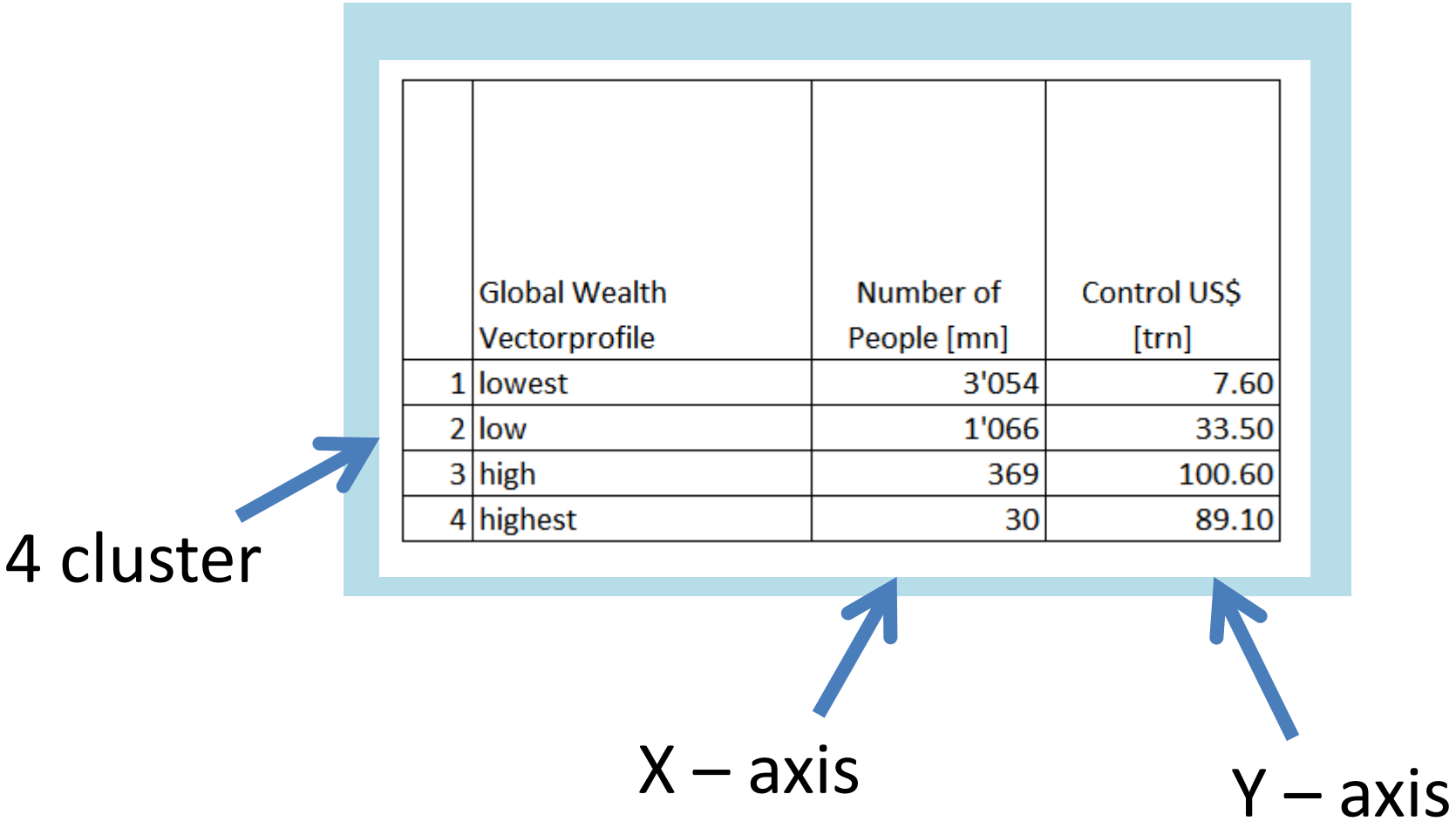
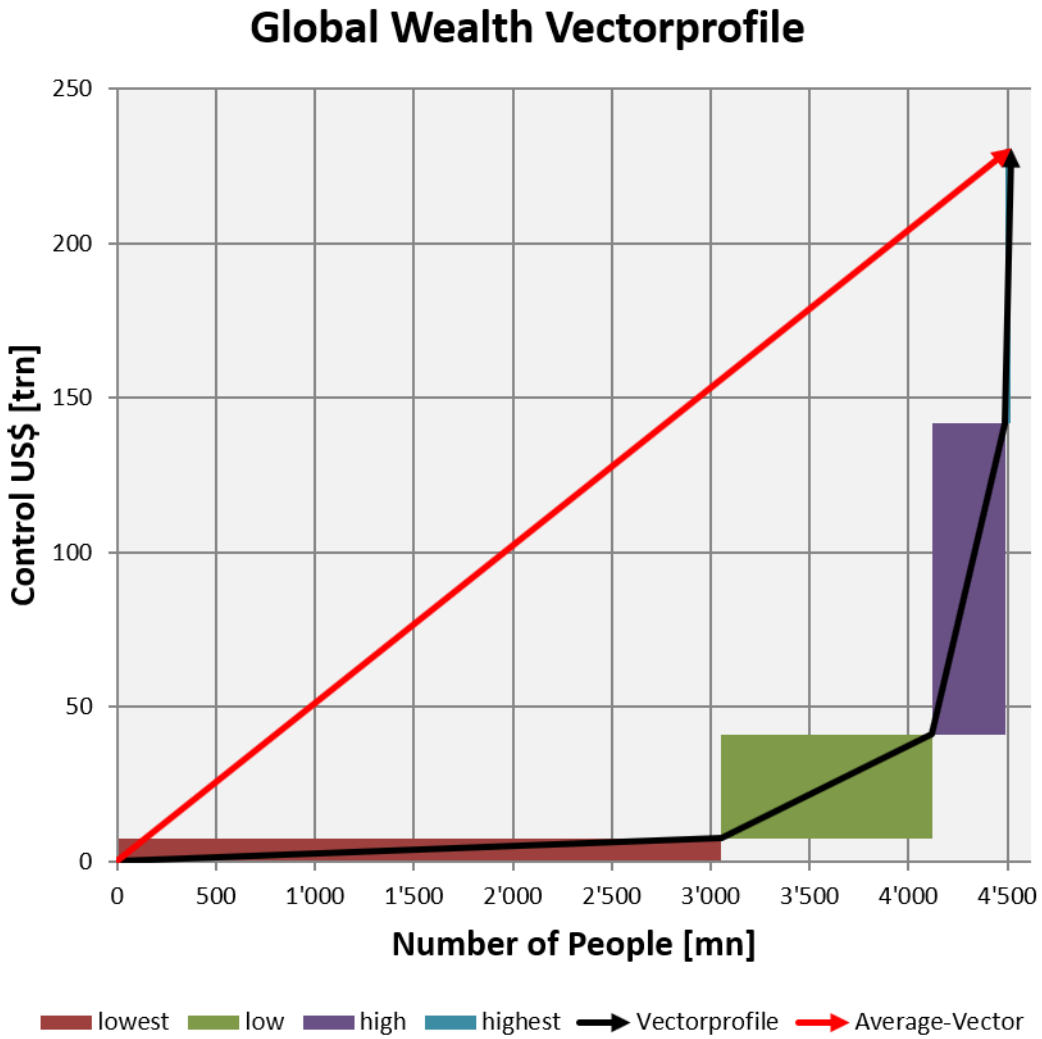
Vector Type 1

	Global Wealth Vectorprofile	Number of People [mn]	Control US$ [trn]
1	lowest	3'054	7.60
2	low	1'066	33.50
3	high	369	100.60
4	highest	30	89.10



Vector Type 1



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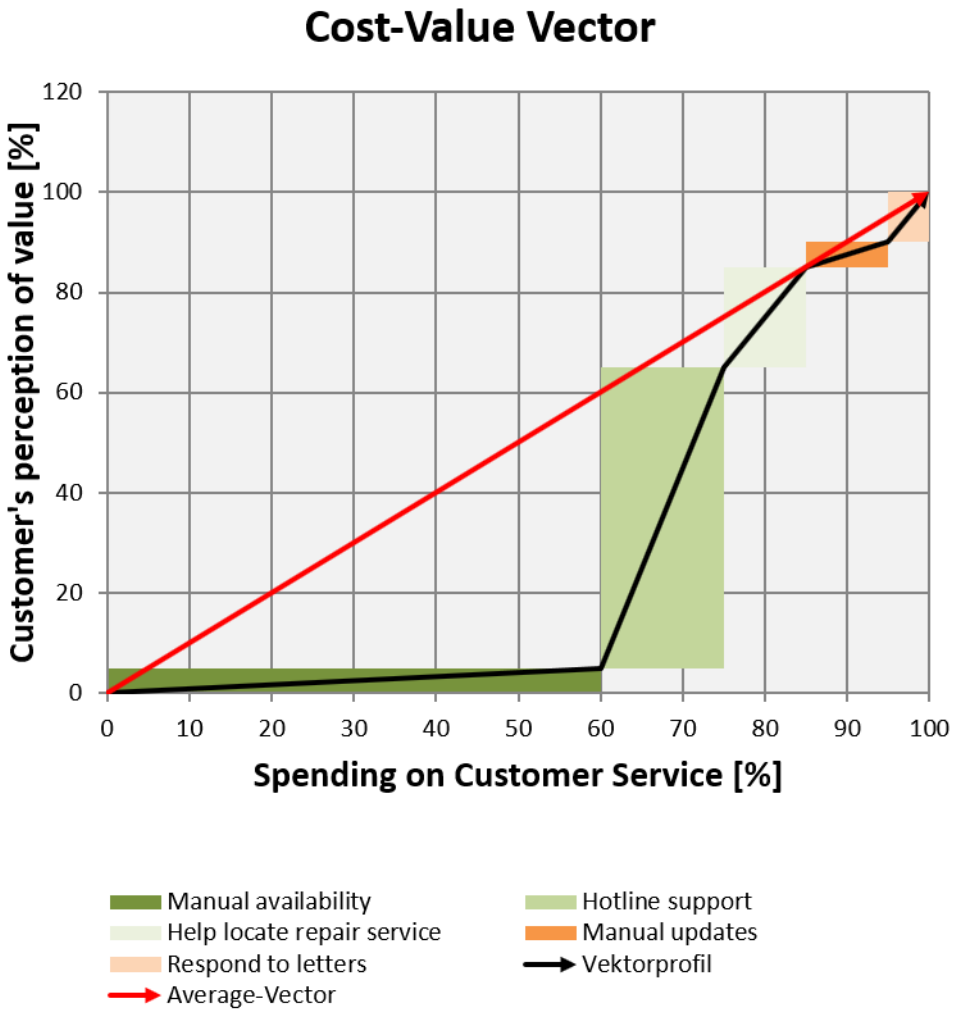
Vector Type 1



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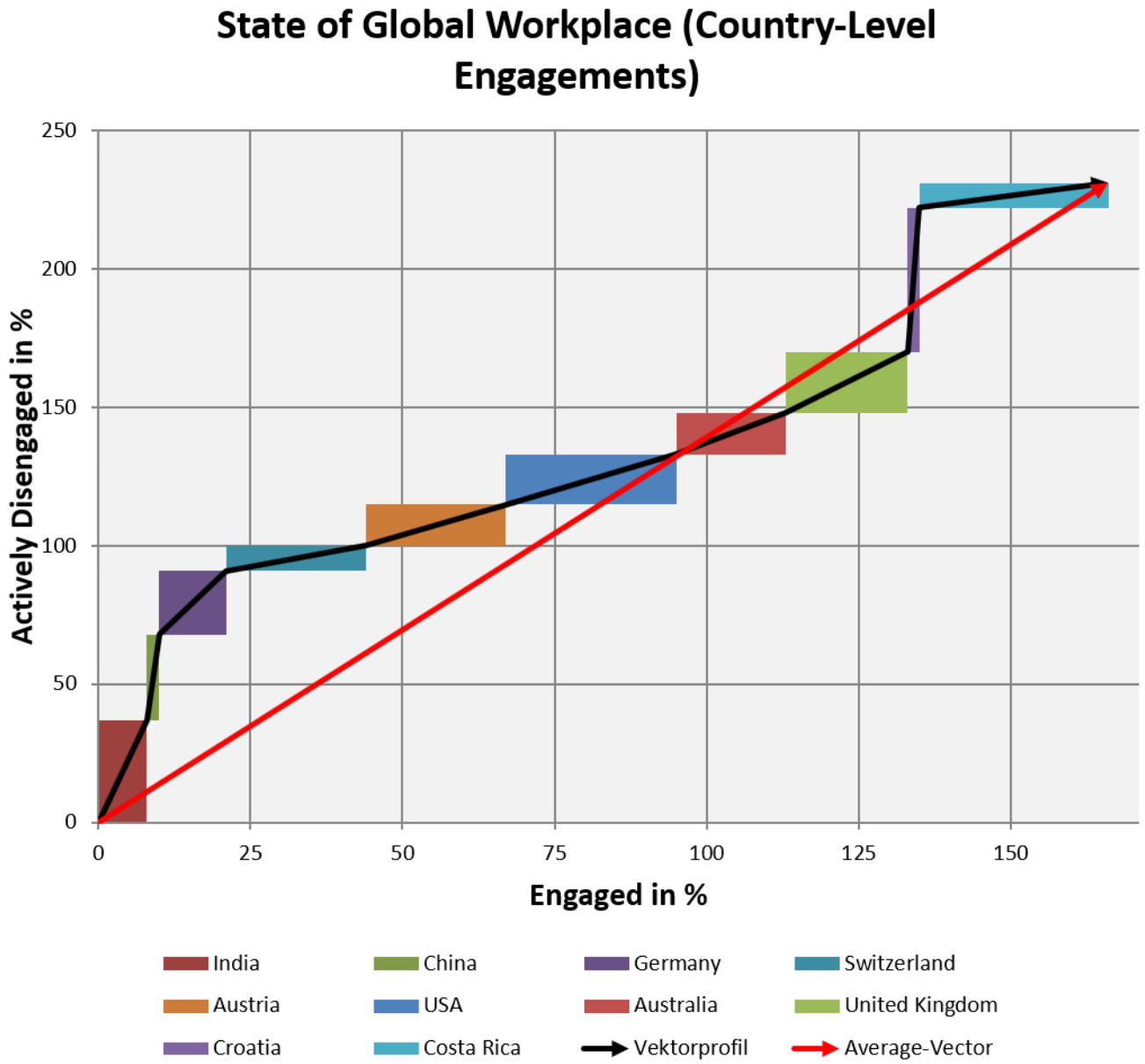

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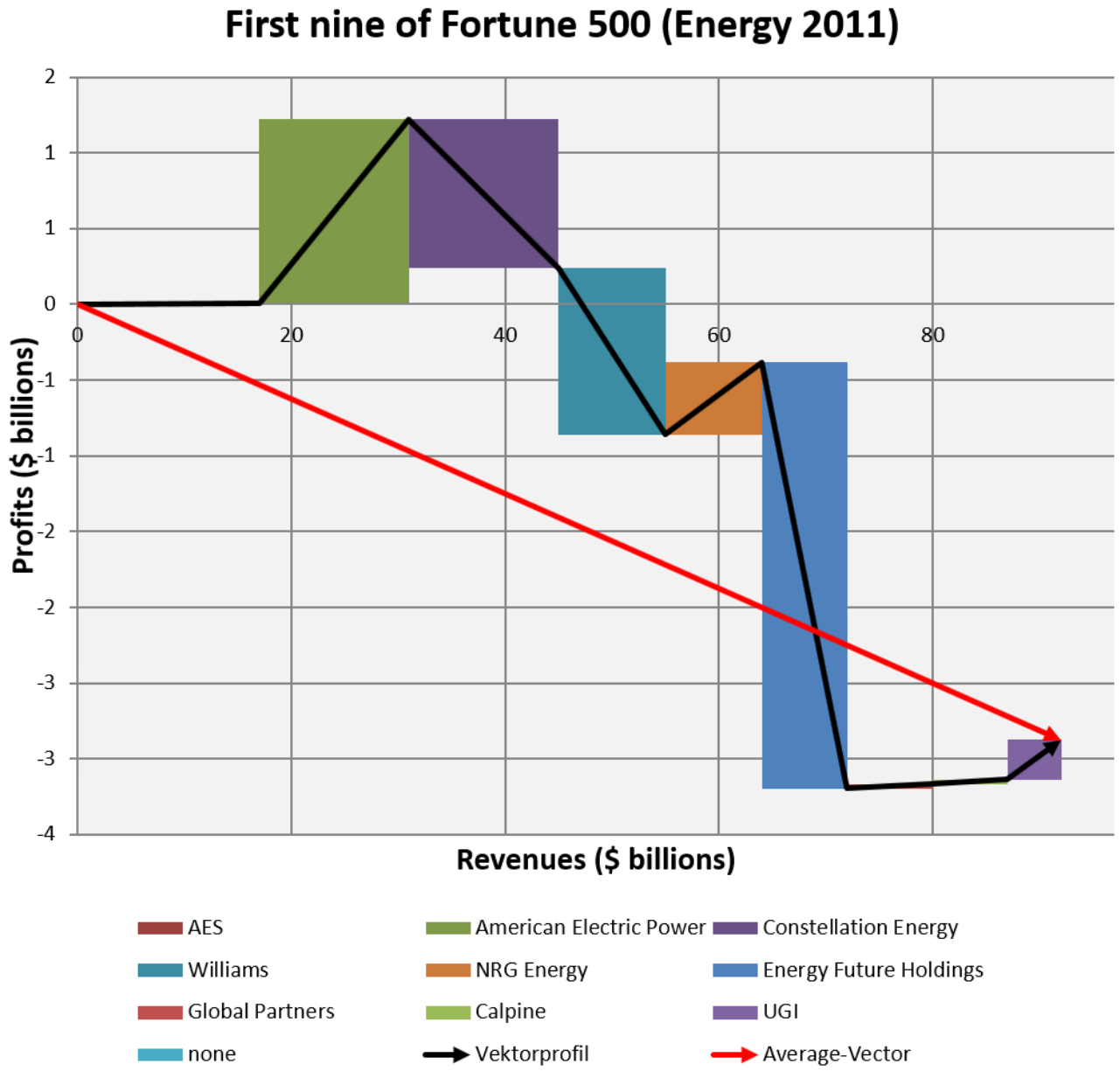

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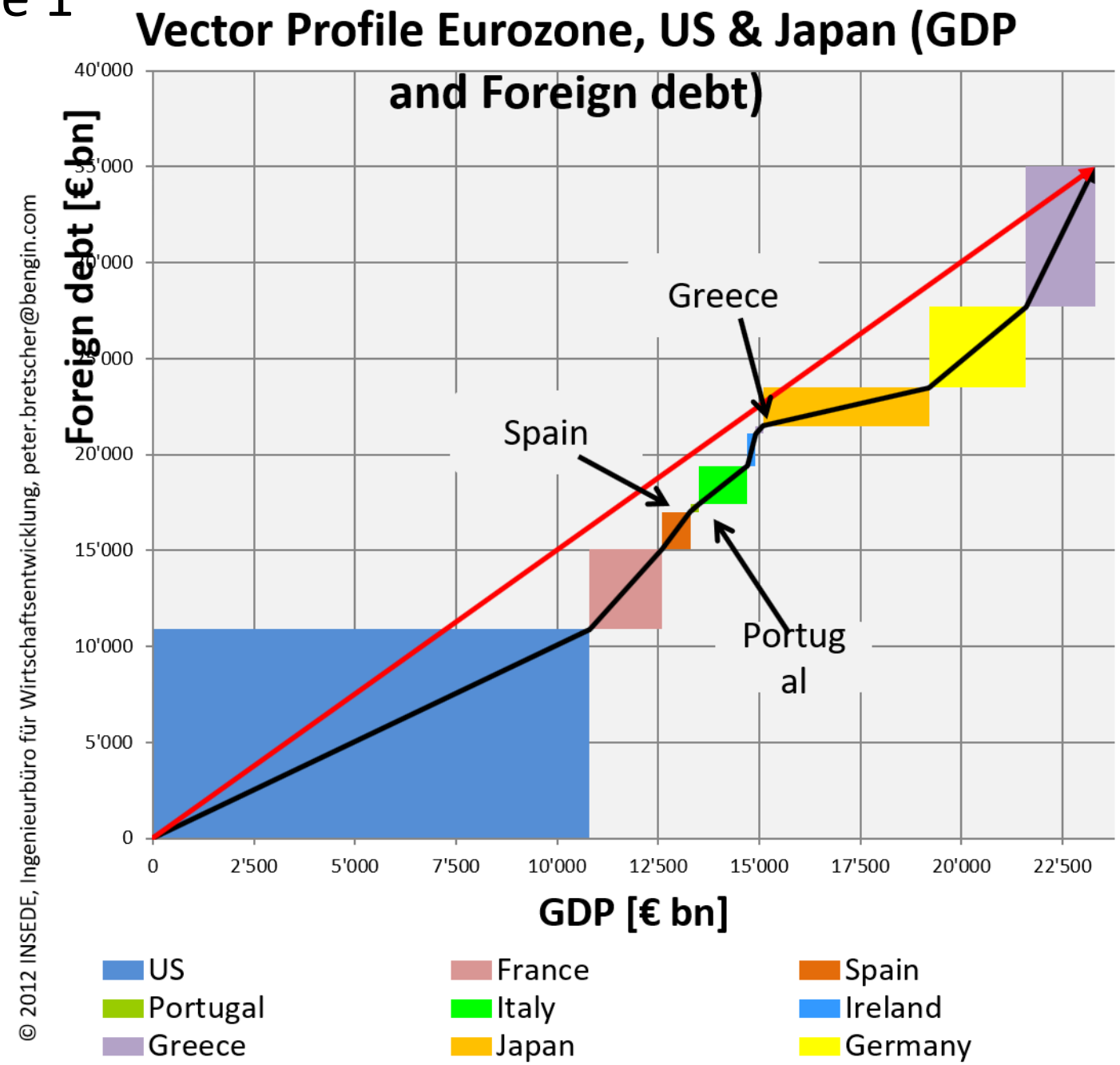

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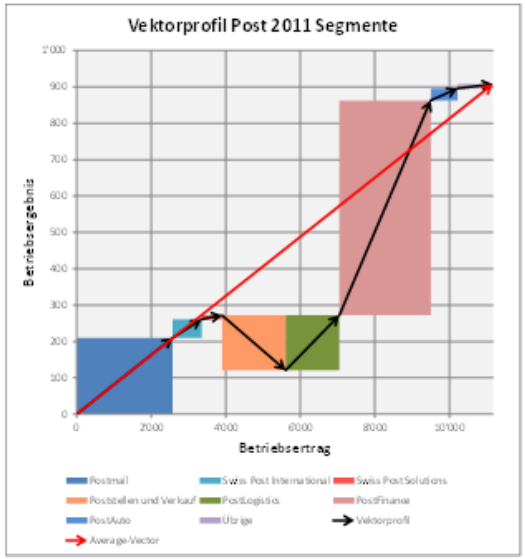

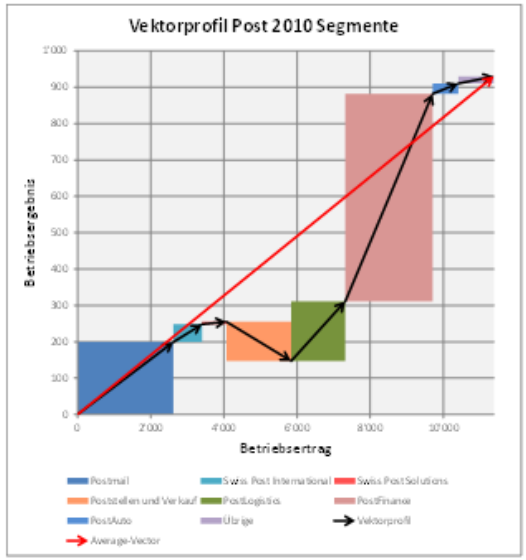

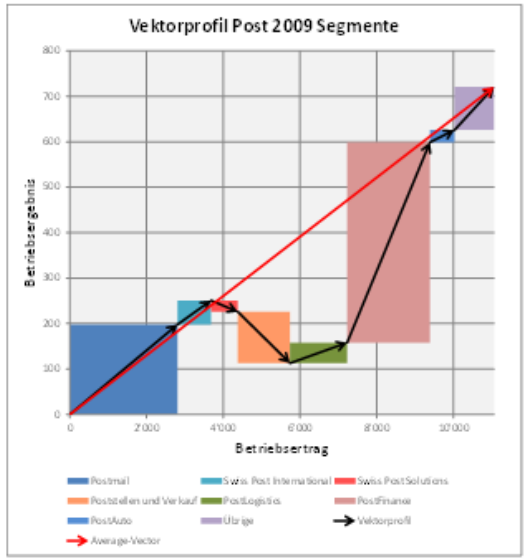

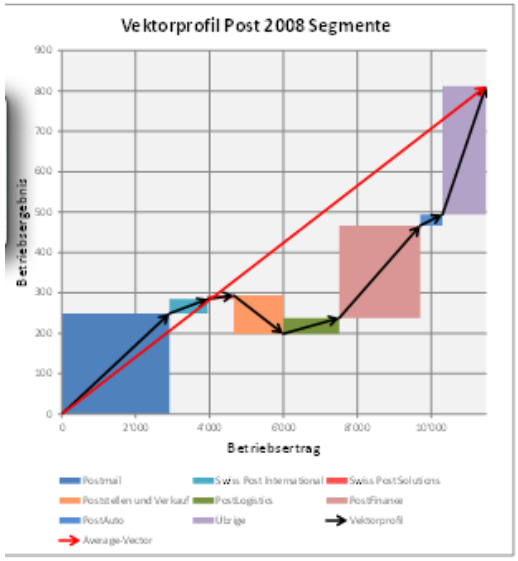

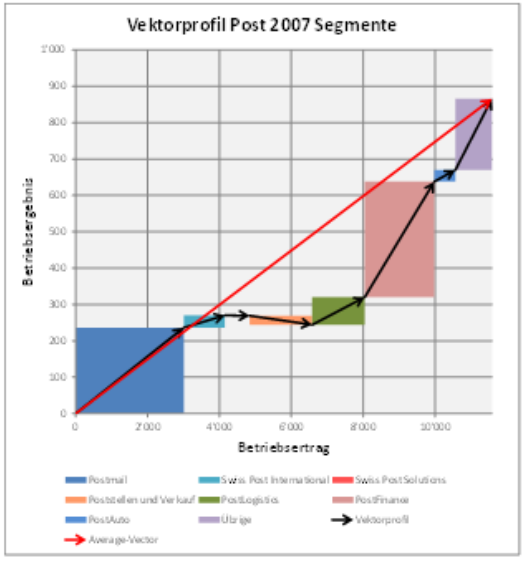

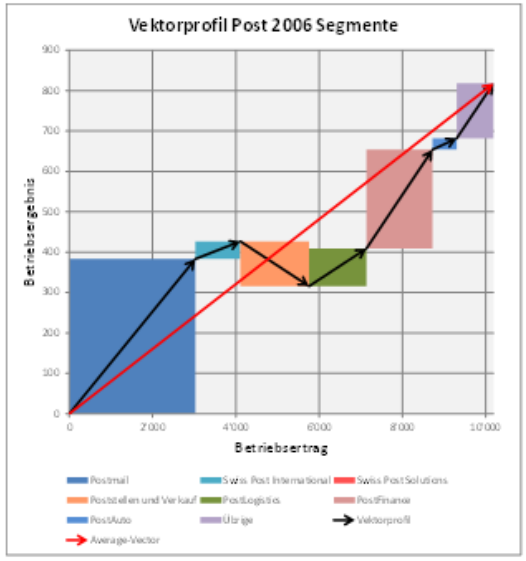

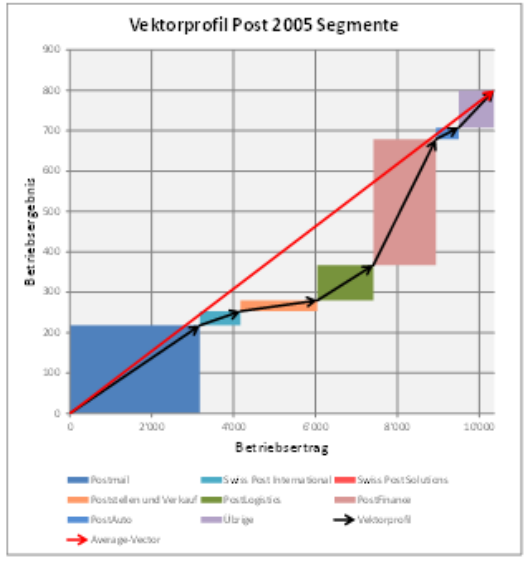

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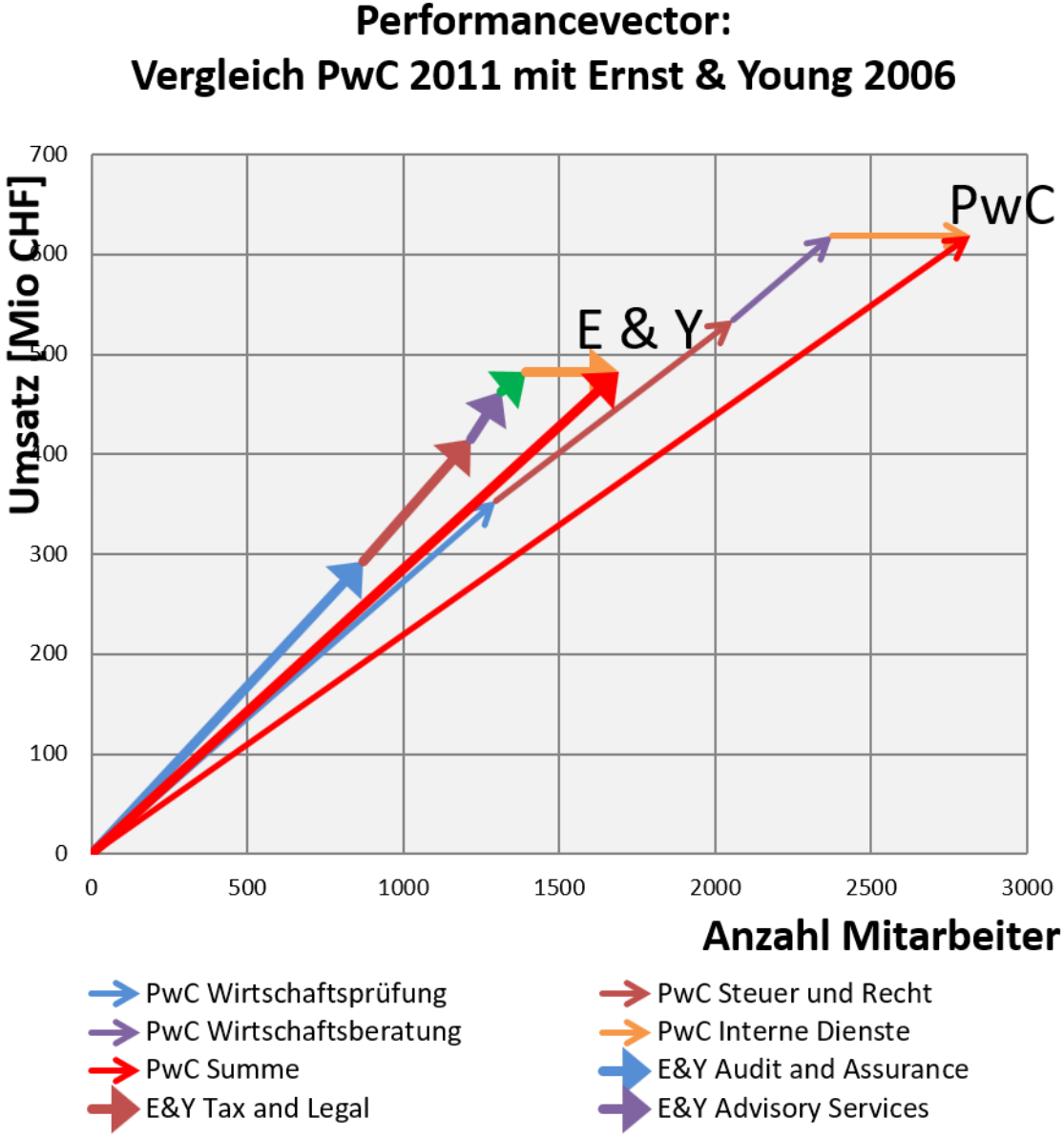

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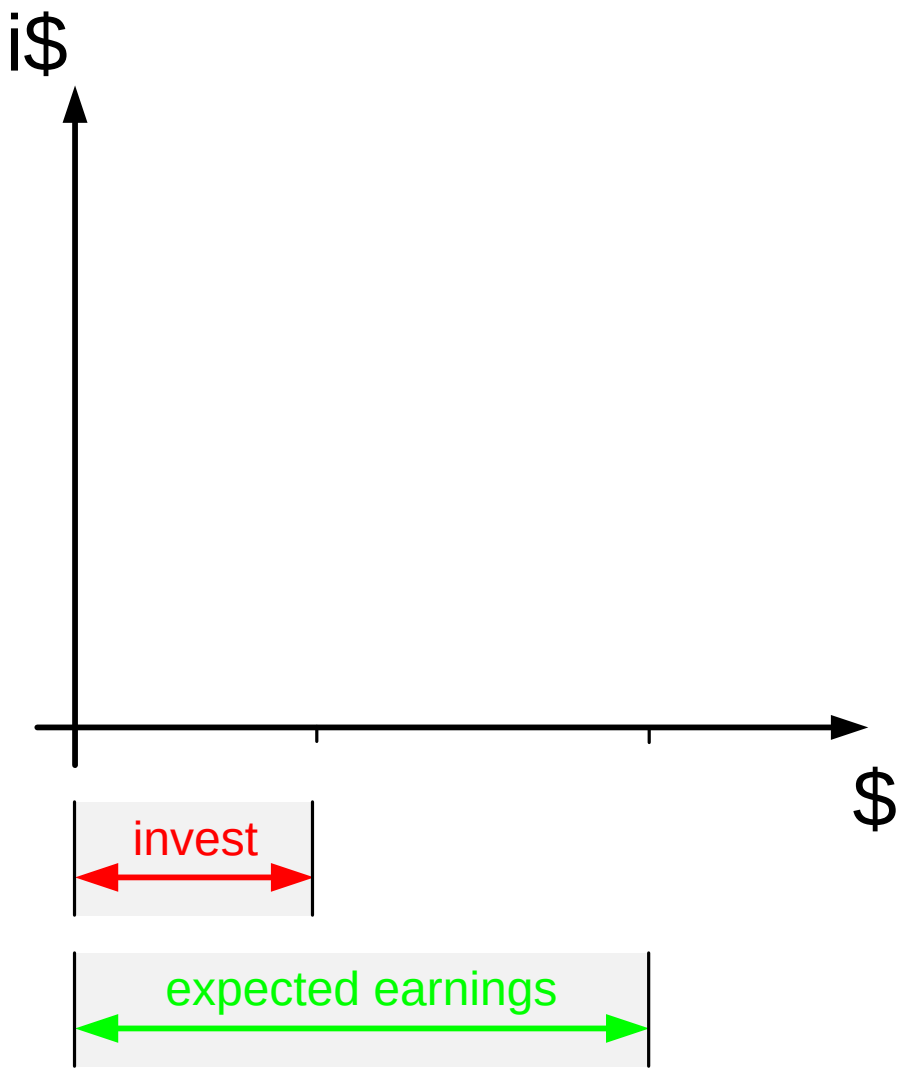
Vector Type 2

VALUES, VISUALS & FRAMEWORK

BEYOND SMITH & CO

Vector Type 2

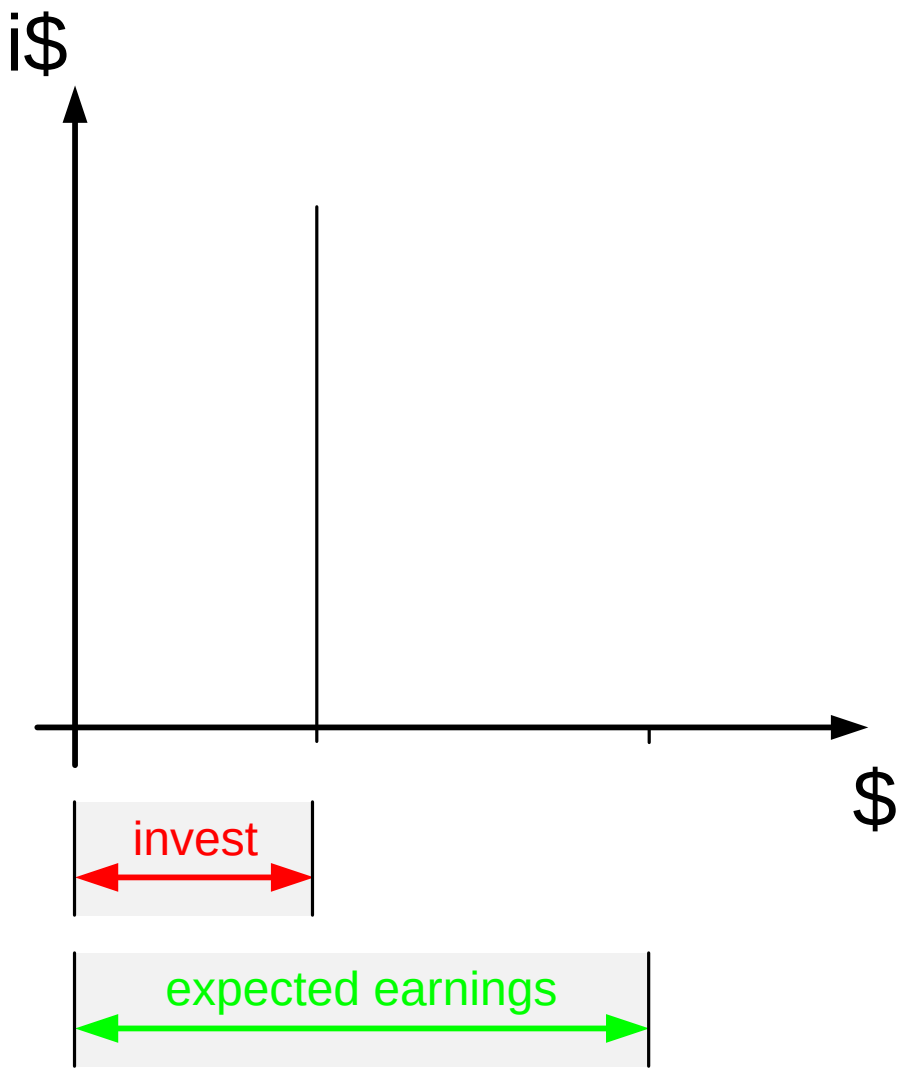
Business potential of a project



Peter Bretscher www.bengin.com – peter.bretscher@bengin.com

Vector Type 2

Business potential of a project



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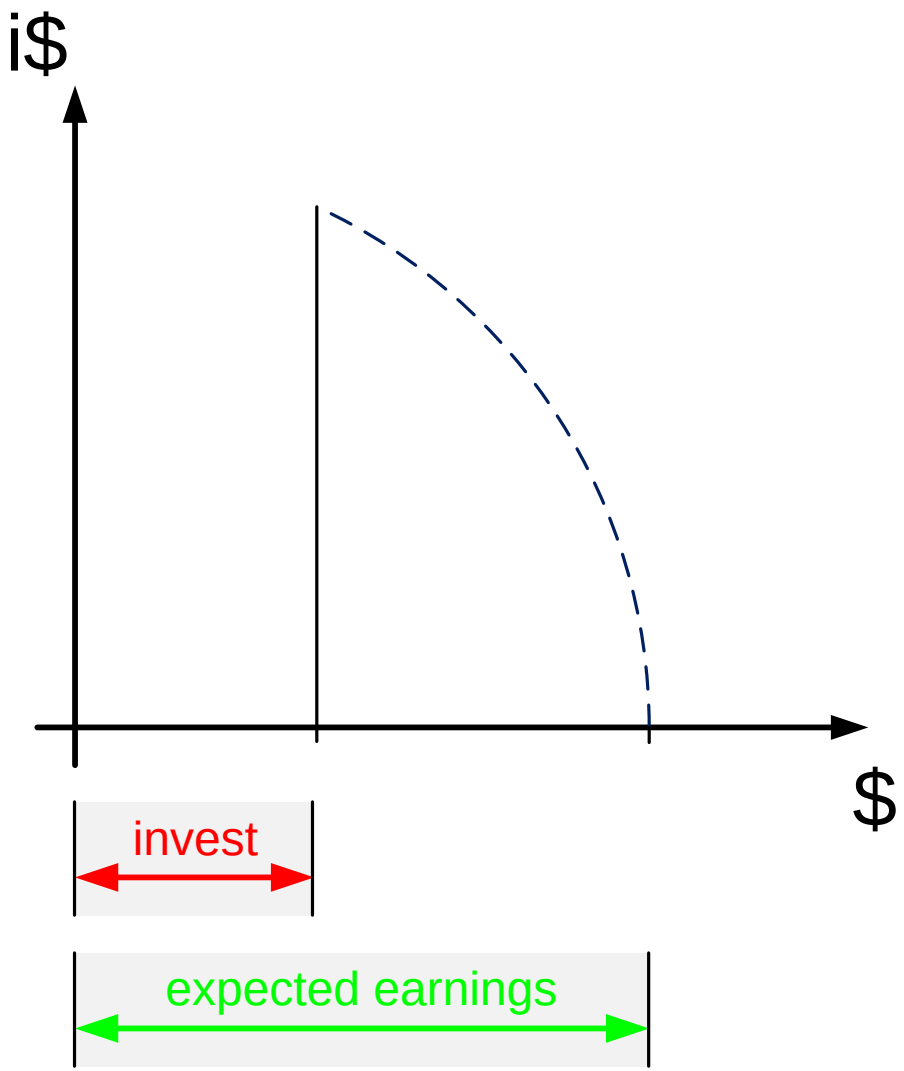
Vector Type 2

Business potential of a project



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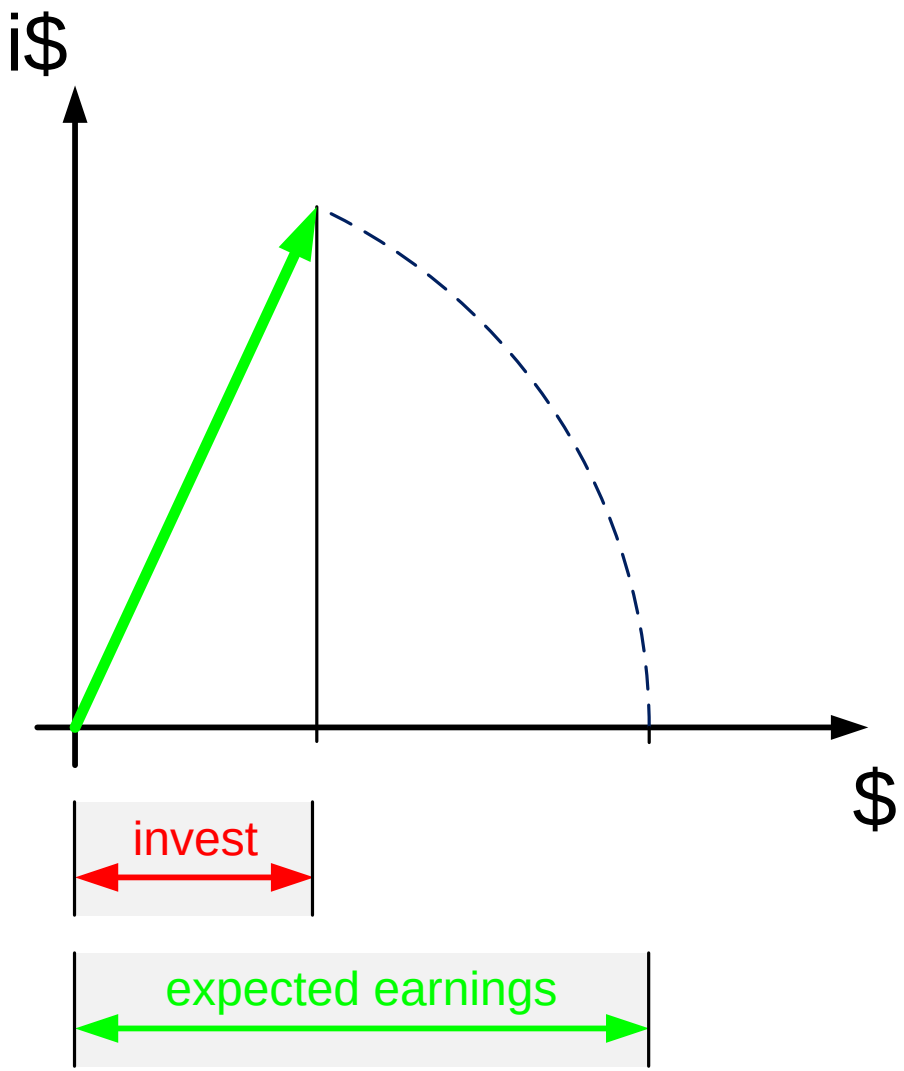
Vector Type 2

Business potential of a project



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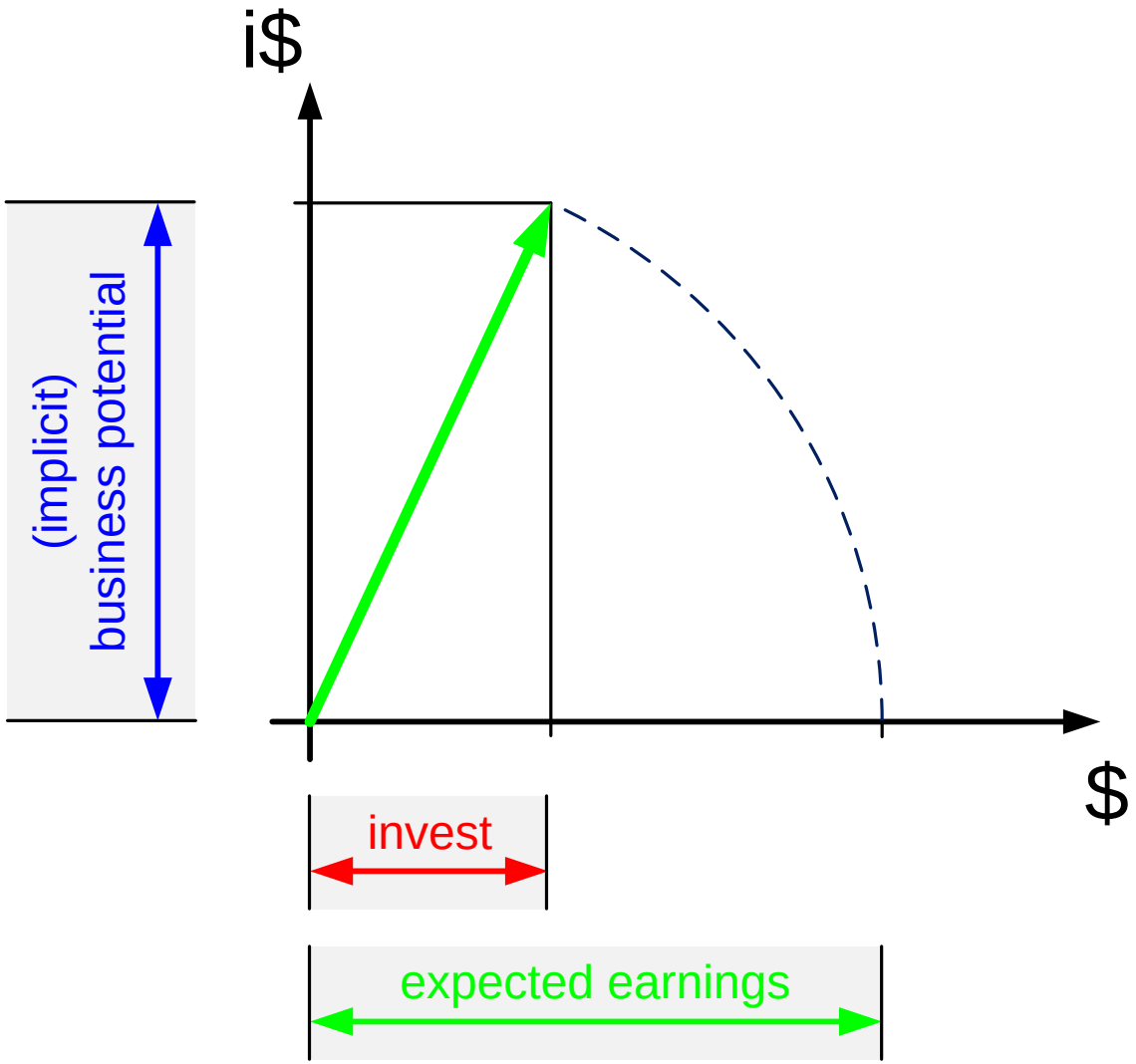
Vector Type 2

Business potential of a project



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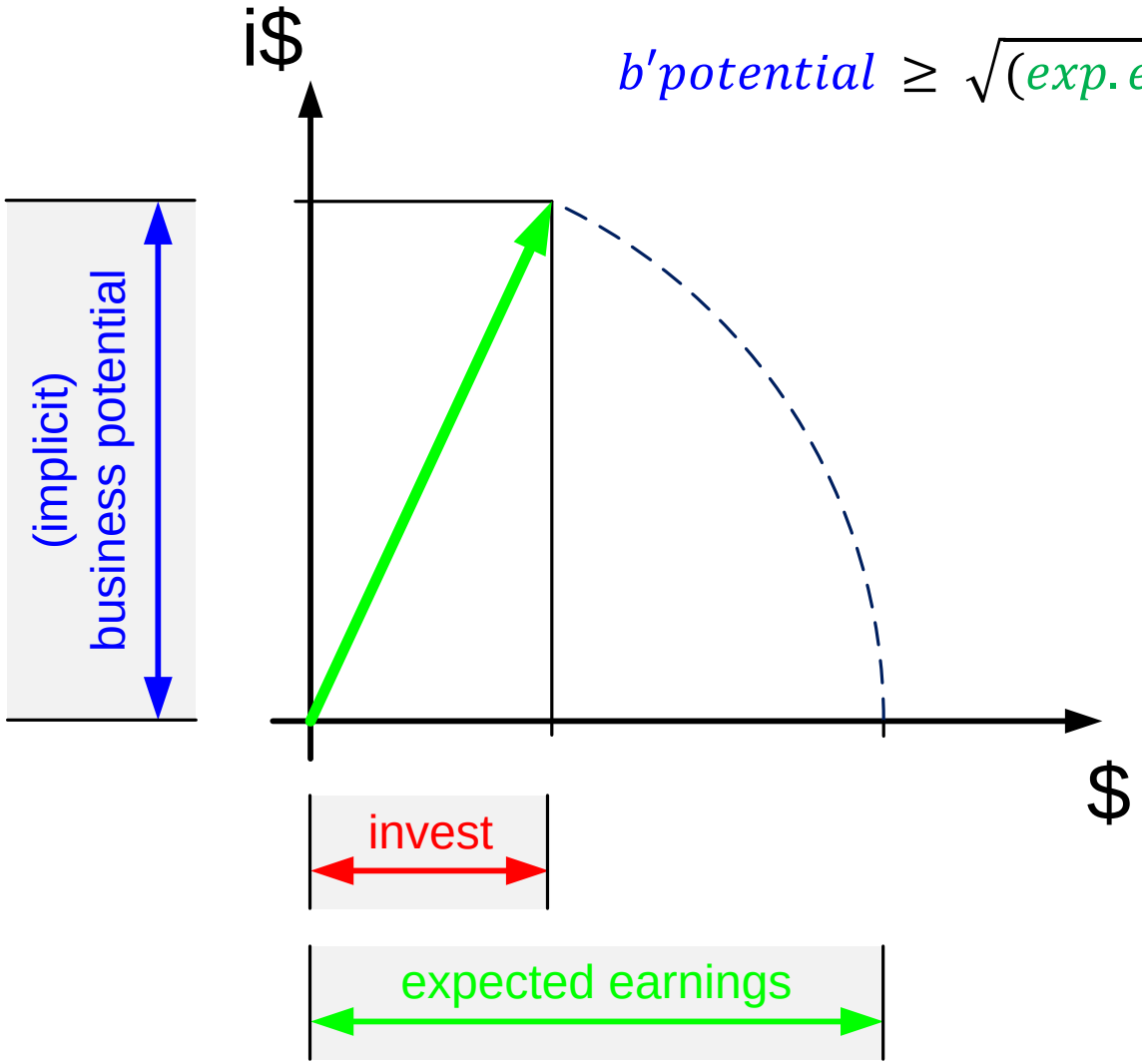
Vector Type 2

Business potential of a project

$$b'potential^2 \geq (exp.earnings)^2 - (invest)^2$$

$$b'potential \geq \sqrt{(exp.earnings)^2 - (invest)^2}$$



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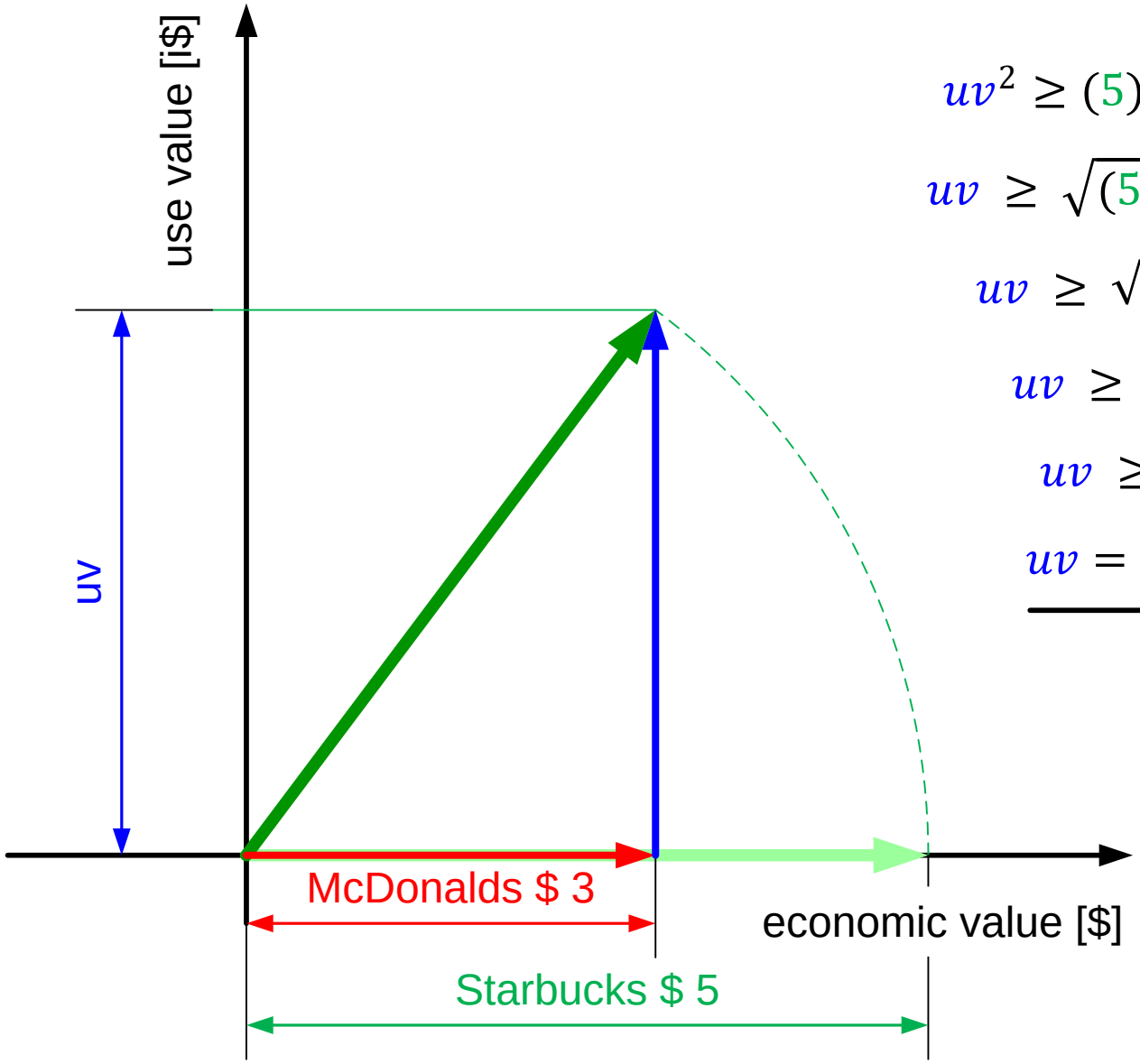
Use value for coffee at Starbucks instead McDonalds?

($ 5) ($3)



$$uv^2 \geq (5)^2 - (3)^2$$

$$uv \geq \sqrt{(5)^2 - (3)^2}$$

$$uv \geq \sqrt{25 - 9}$$

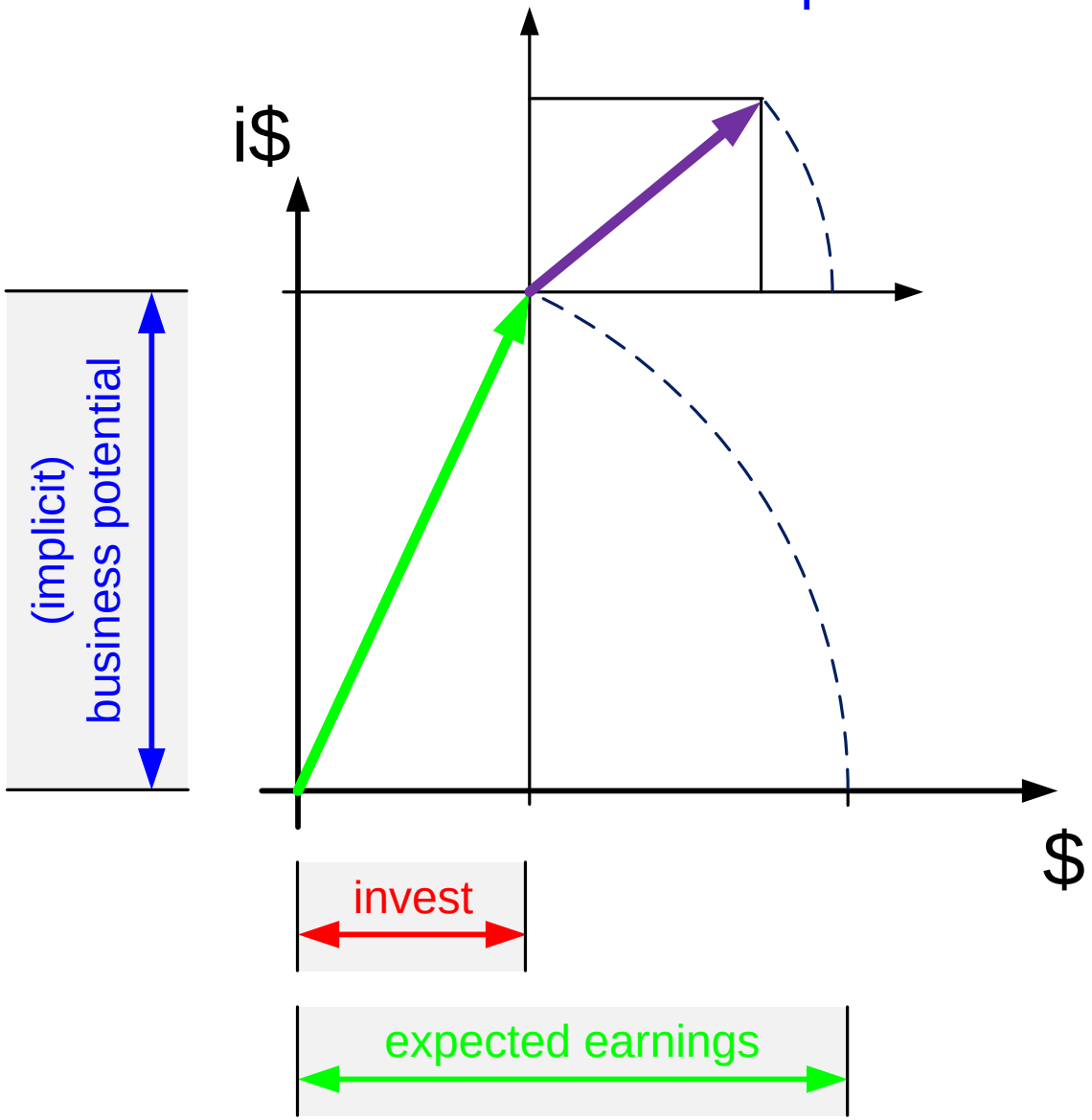
$$uv \geq \sqrt{16}$$

$$uv \geq 4$$

$$uv = 4\ i\$$$

Vector Type 2

Business potential of several projects



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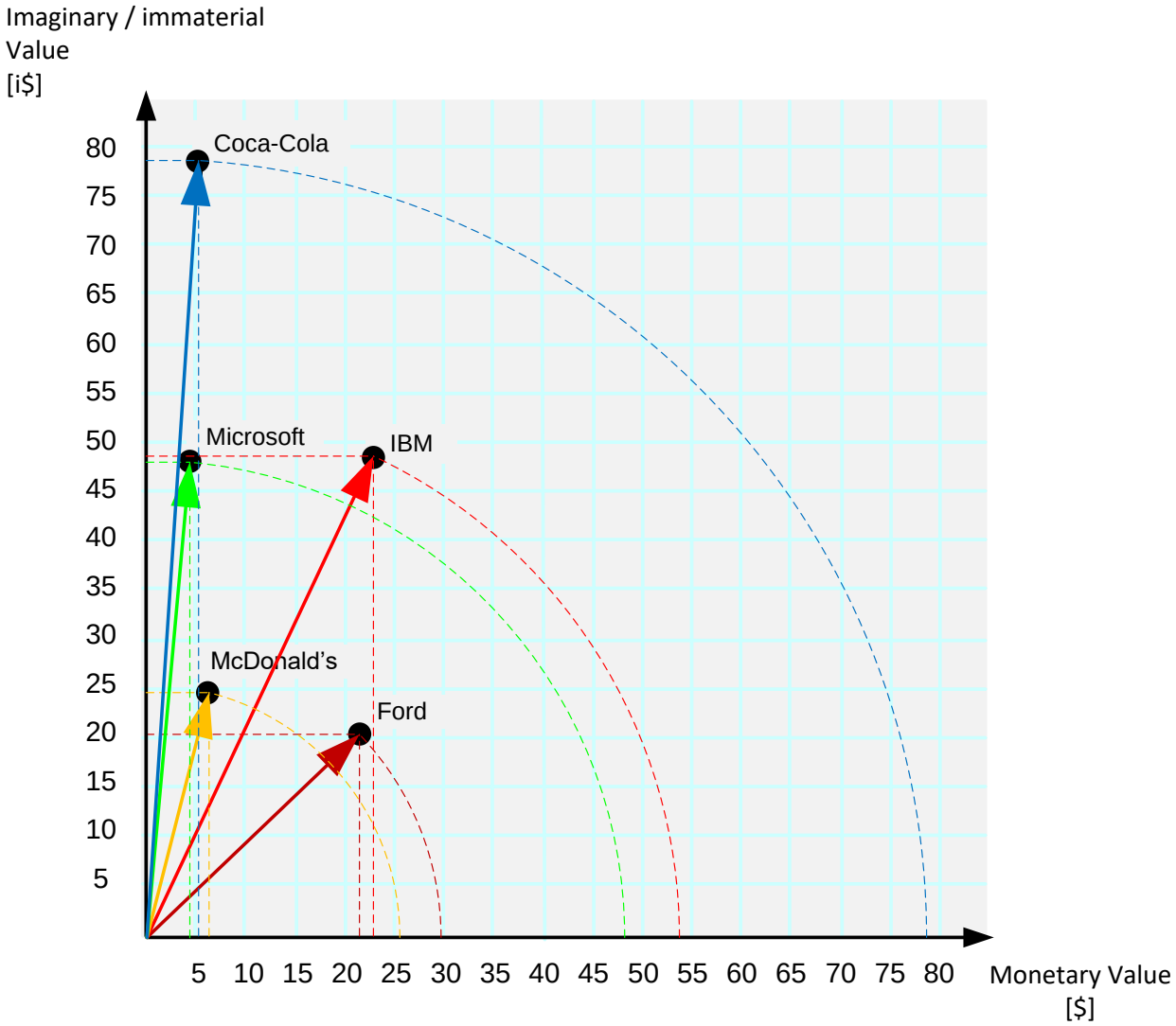
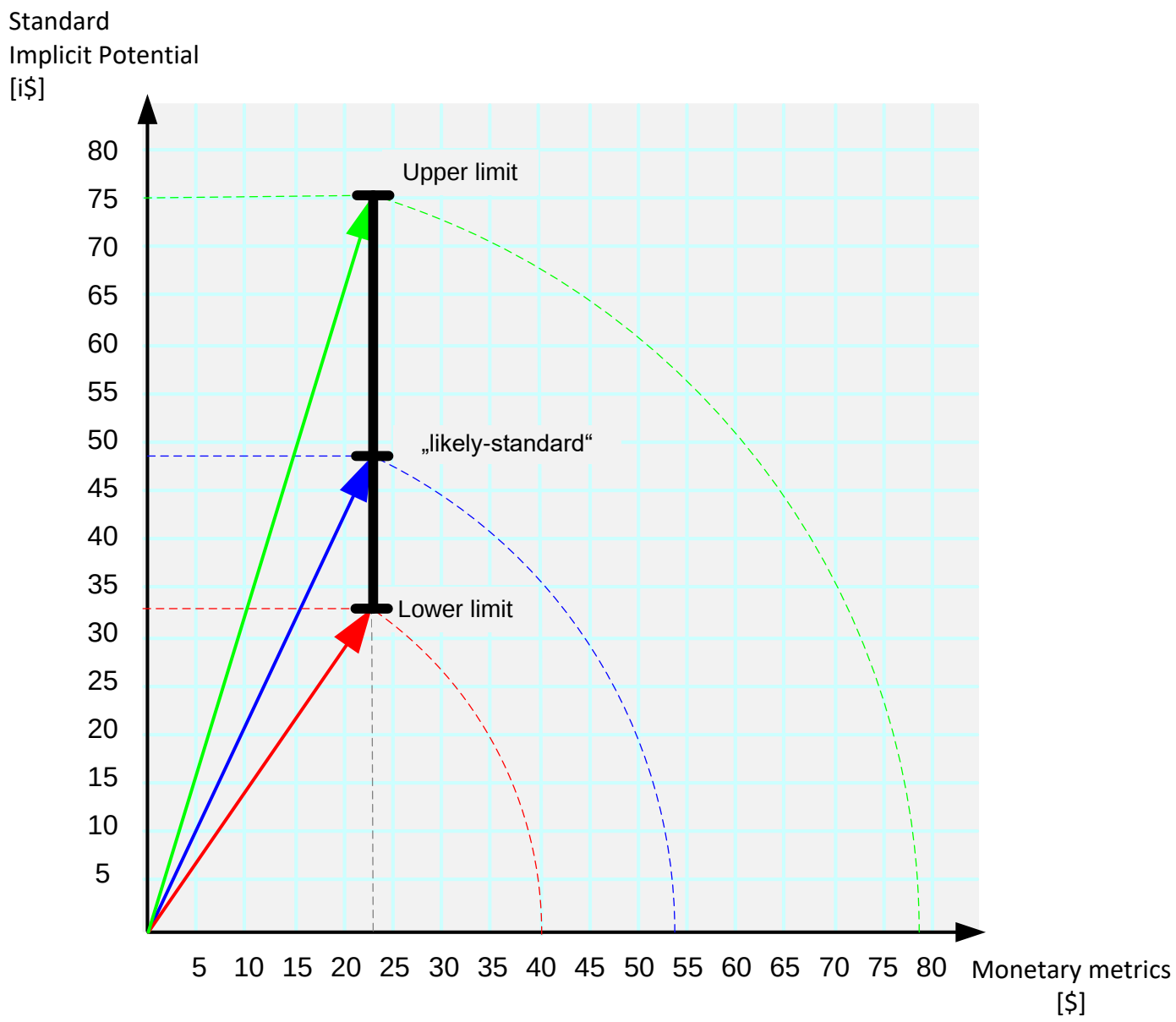
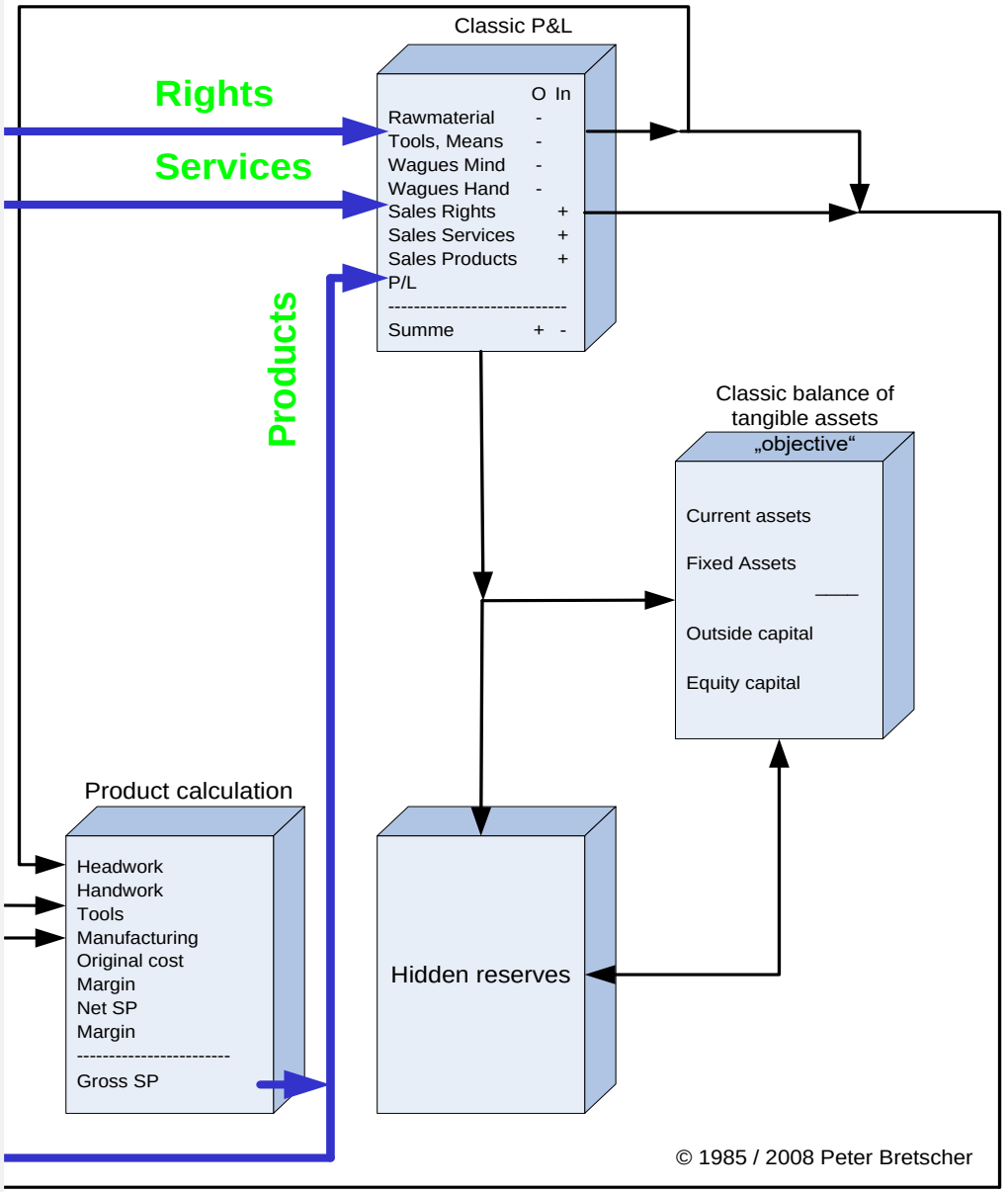

Imaginary / immaterial
Value
[i$]
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
Coca-Cola
Microsoft
IBM
McDonald's
Ford
5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80
Monetary Value
[$]


Standard
Implicit Potential
[i$]
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
Upper limit
„likely-standard“
Lower limit
5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80
Monetary metrics
[$]

WHAT TO MAKE WITH POTENTIAL

„traditional“ business economics

„objective“ Values [$, £, ¥. €, CHF]

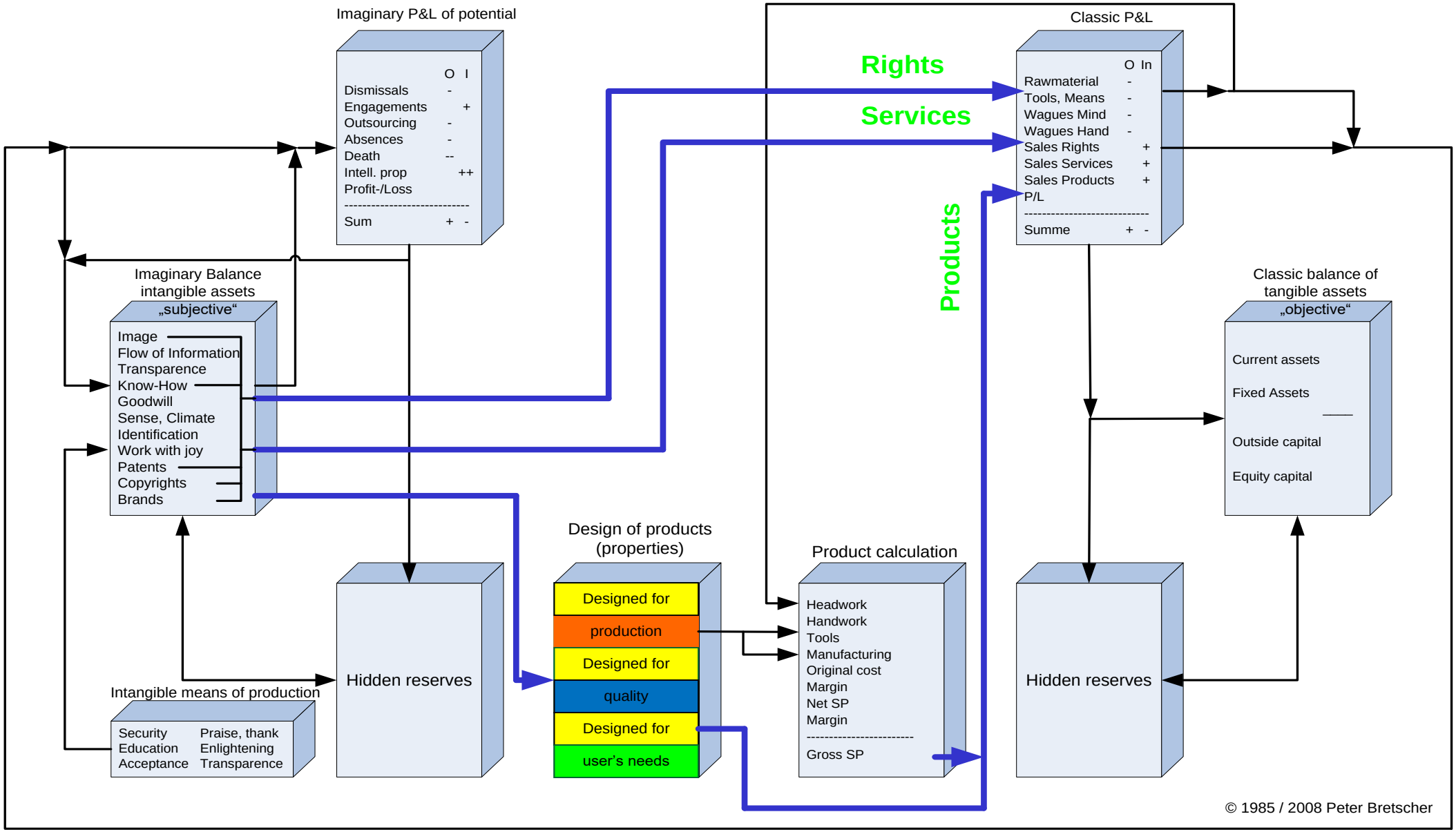


„imaginary“ business economics

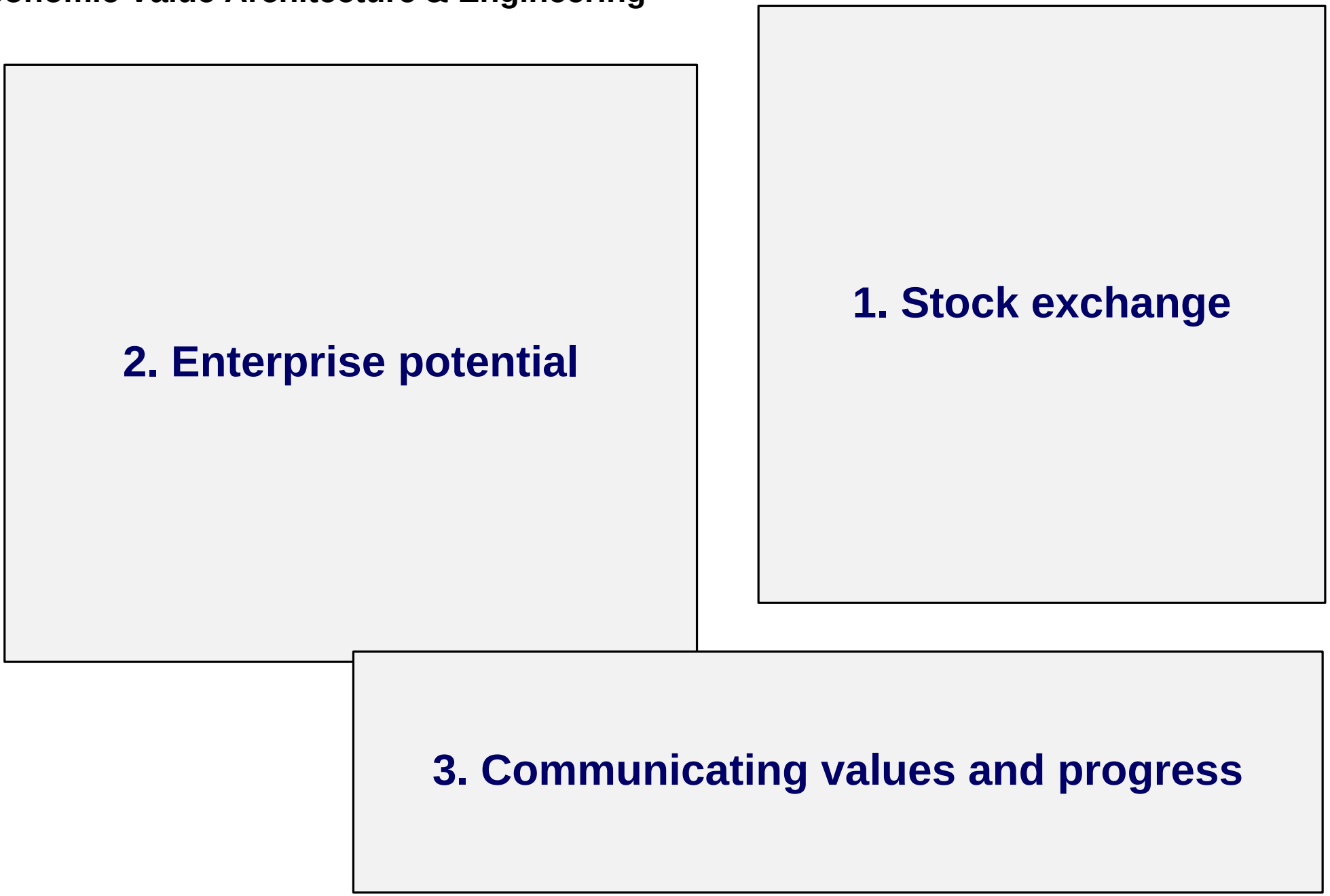
„subjective“ Values, not tangible, but real

„traditional“ business economics

„objective“ Values [$, £, ¥. €, CHF]

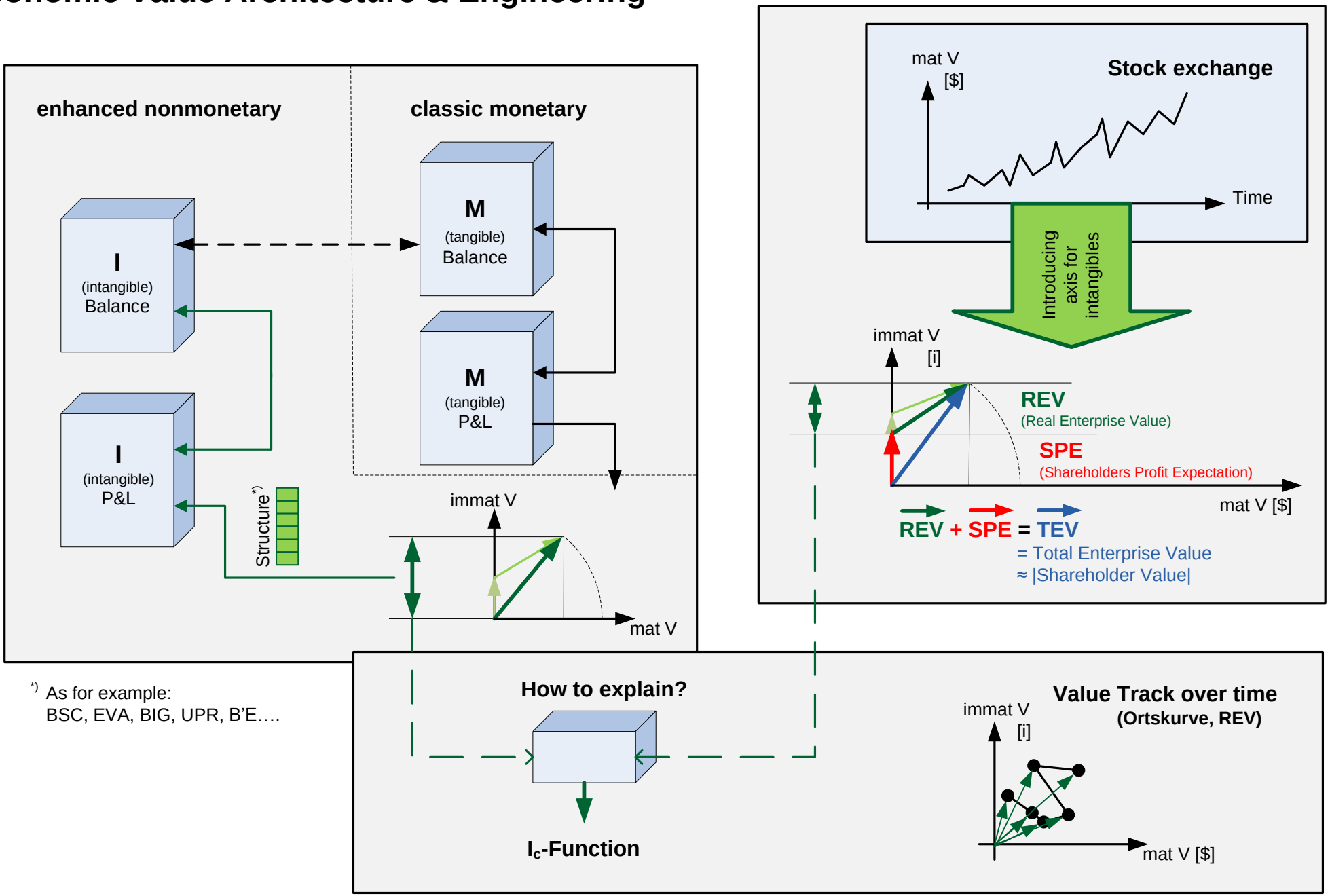


Economic Value Architecture & Engineering



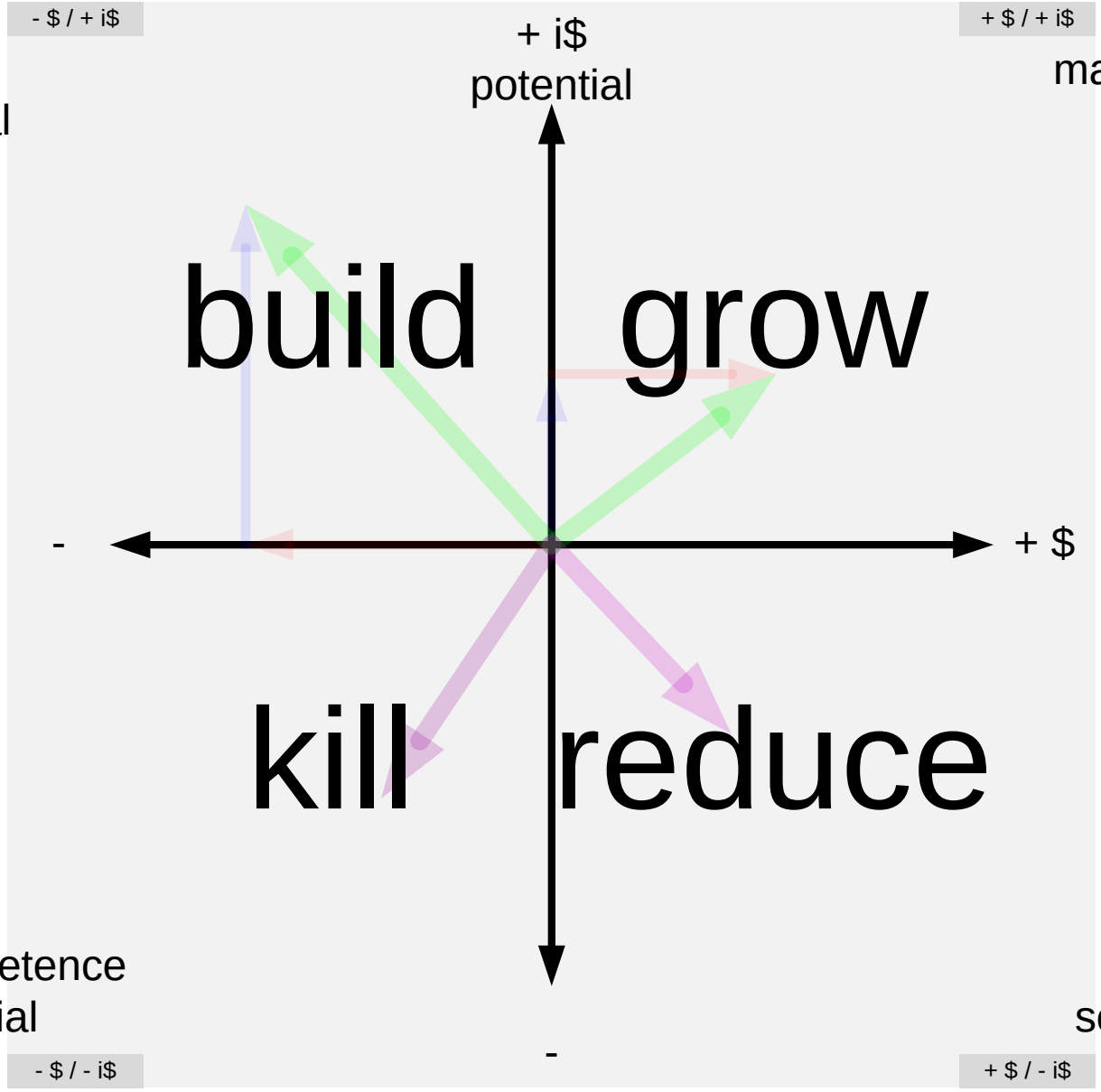
 ecoval_pc000158_2012a_e.vsd

Economic Value Architecture & Engineering



*) As for example:
BSC, EVA, BIG, UPR, B'E….

Strategic modes – **build** – **grow** – **reduce** – **kill**



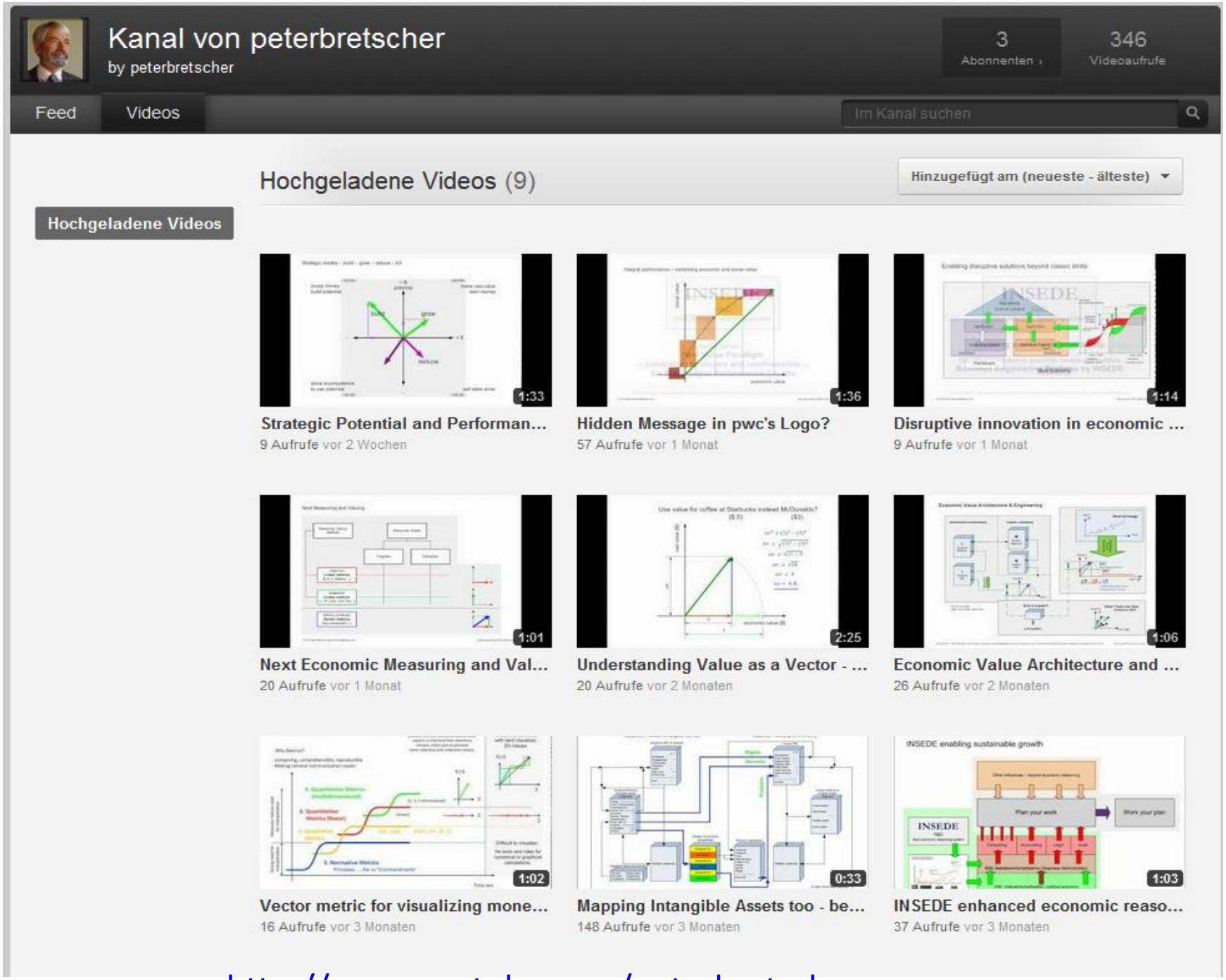
invest money
build potential

make use-value
earn money

show incompetence
to use potential

sell table silver

FURTHER LINKS

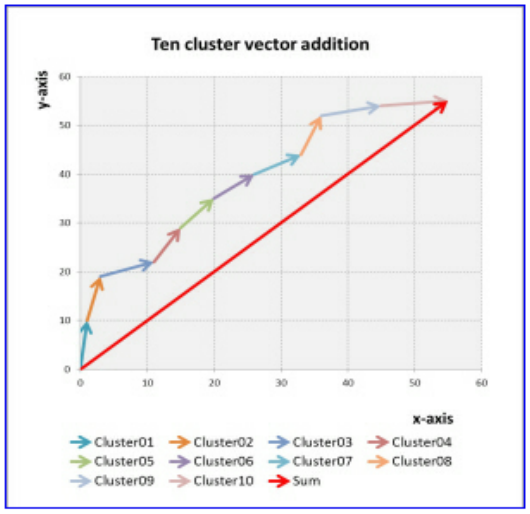


http://www.youtube.com/peterbretscher

Tips/Recommendations:

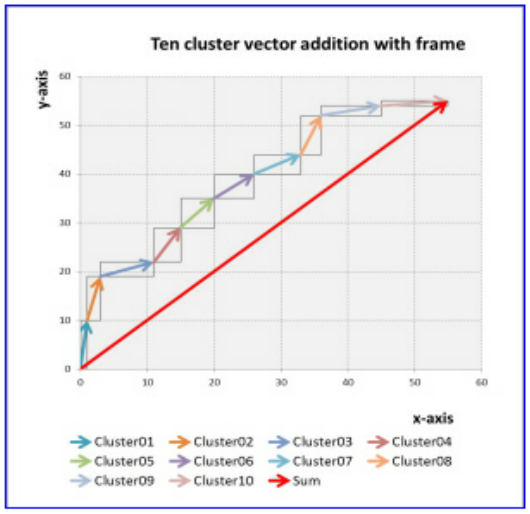
http://bengin.net/beta/basic_master_e.htm

- look for the template, which contains at least that number of clusters that you want to consider. (Not required clusters may be set to zero. The index may be revised direct in the chart.)
- Use for comparison of data sets - for example, budget and account of two companies or business cycles or.... - the pure vector representation (without colorized rectangles). Use it for comparing monetary with monetary - monetary with nonmonetary and nonmonetary with nonmonetary indicators. You may be surprised about the new transparency you will gain.
- Make "Drill-Downs" by copying the first page behind that page so much times as you have "clusters". Then structure the elements of the "sub-clusters" according to your needs and link the sum to the corresponding field on the first page.
- Connect your internal data with external data from web.



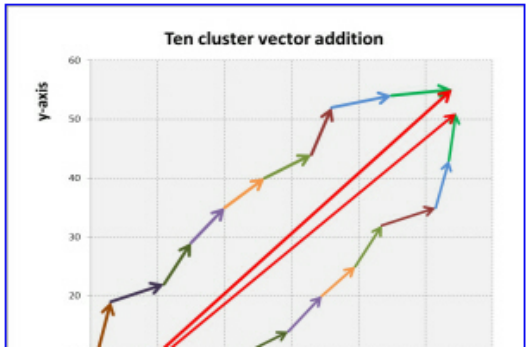
"Pure 10 vectors"
Comparison of 10 clusters - for example, divisions, countries, projects, cost centers..... - among themselves and within the overall context.

10_vect_add_one_001_e



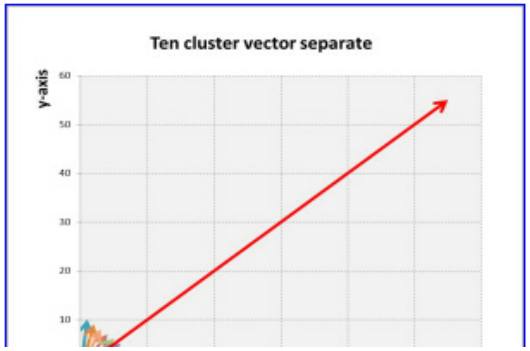
10 Vectors with frames. These frames facilitate untrained observer the orientation.

10_vect_add_one_frame_001_e



Similar to "Pure 10 vectors" but with a second record.
This allows the simultaneous display of budget and account - or two periods or.....

10_vect_add_two_001_e



10 cluster starting x=0 and y=0 (without addition) with sumvector.

10_vect_sep_001_e

English spoken

http://vimeo.com/38091481

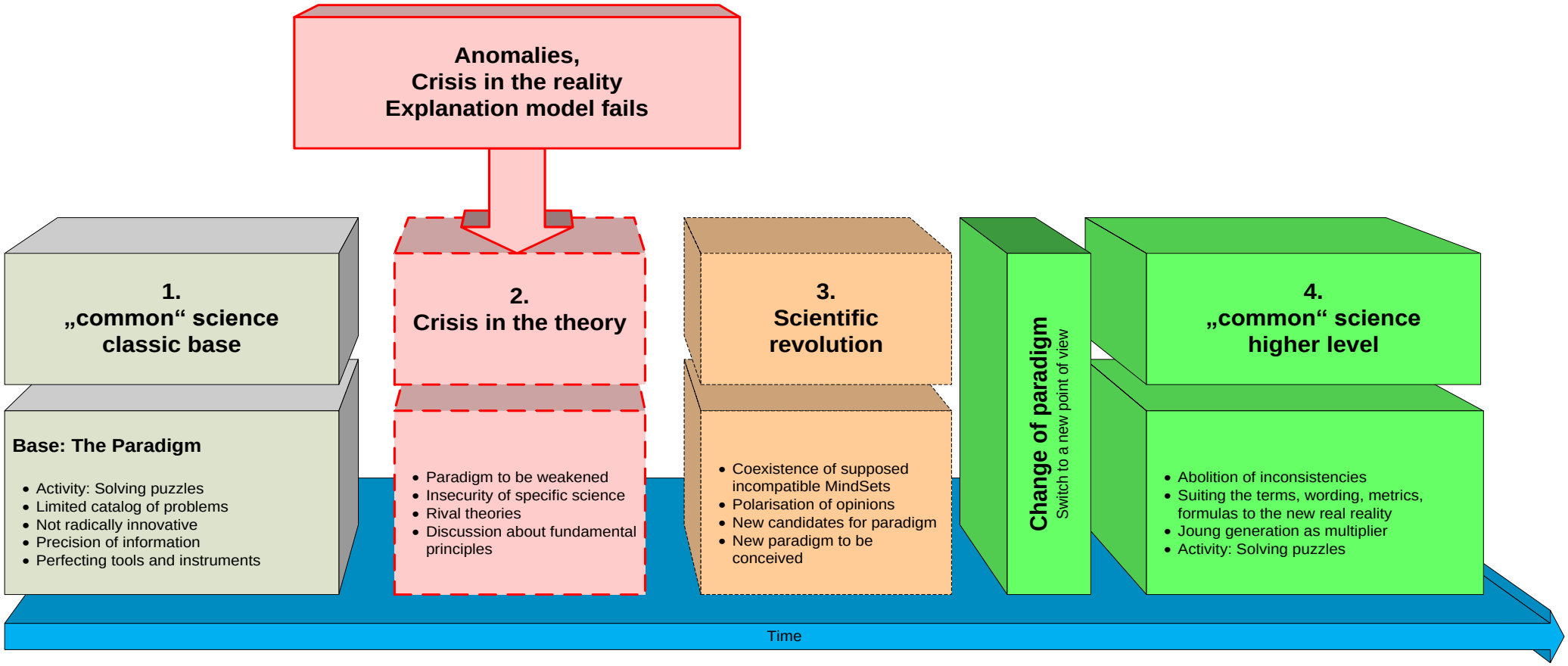
Questions?

Thank You

Other slides

Paradigm shift in economic understanding

(Steps in mindware development)



 Peter Bretscher www.bengin.com
peter.bretscher@bengin.com
Part of Business Engineering Systems,

Literature:
Hochuli Gerhard R.: Das Wesen wissenschaftlicher Revolution, Herbsttagung Club NTB, 1983
Kuhn Thomas: Die Struktur wissenschaftlicher Revolutionen, Suhrkamp Taschenbuch 25, Frankfurt 1981

Development of Business Theory
(S-Curve of Product Development)

Rational MindSet II

Additional:

- **Intangible Assets**
- **Subjective Value Metric**

1782
Anna Goeldin
Last witch beheaded
(Switzerland)

Rational MindSet I

Classic:

- **Tangible Assets**
- **Monetary Value Metric**

Adam Smith

Moral Sentiments 1759

Wealth of Nations 1776

Gauss

Marx

Towne

Taylor

Schumpeter

Keynes

Mises

4 Bit

8 Bit

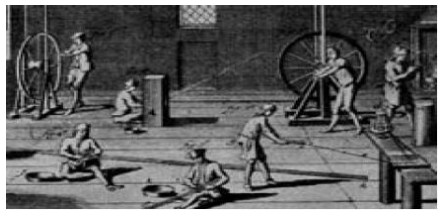
16 Bit

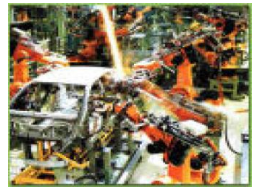
32 Bit

64 Bit

MS-DOS

1750 1800 1850 1900 1950 2000 2050





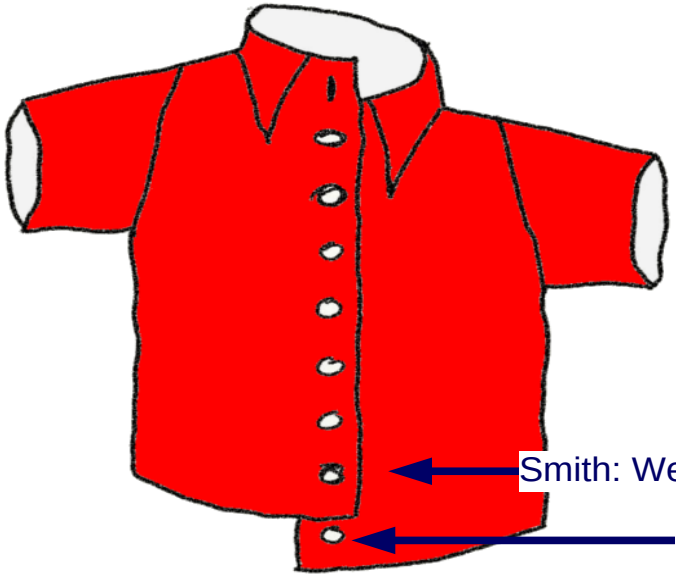
Soros

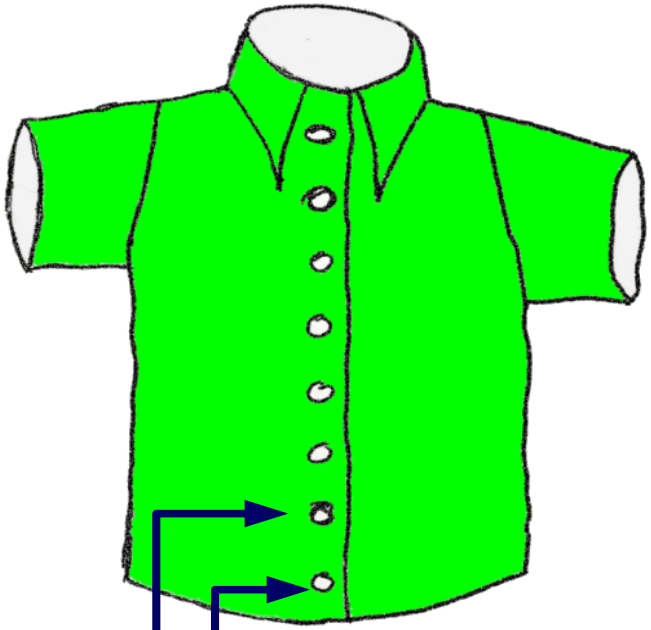
I believe that the failure is more profound than generally recognised.

It goes back to the foundations of economic theory....

12. April 2012 – Berlin – www.ineteconomics.org

http://ineteconomics.org/sites/inet.civicactions.net/files/Soros%20SpeechBerlin%20INET2012.pdf

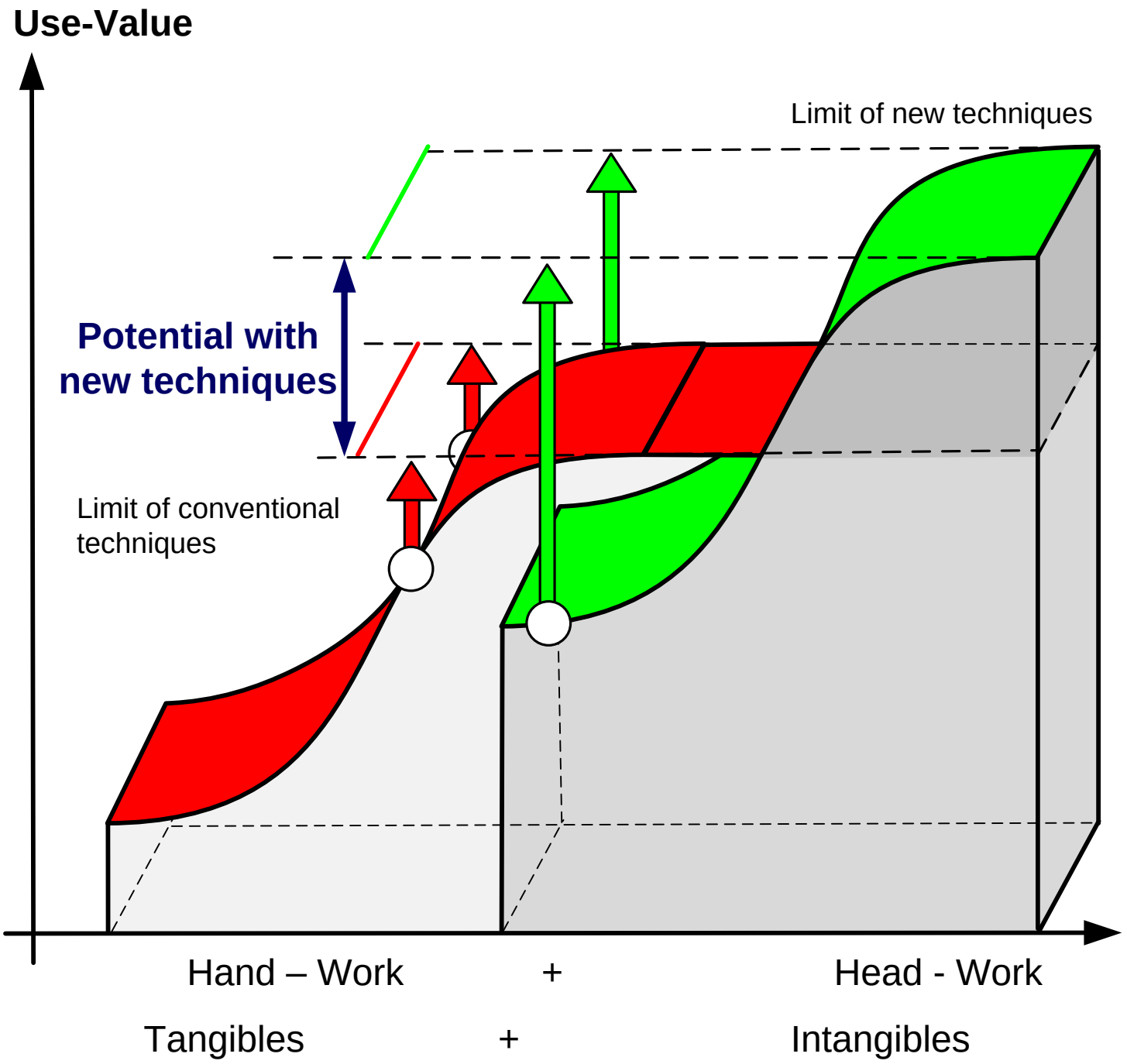




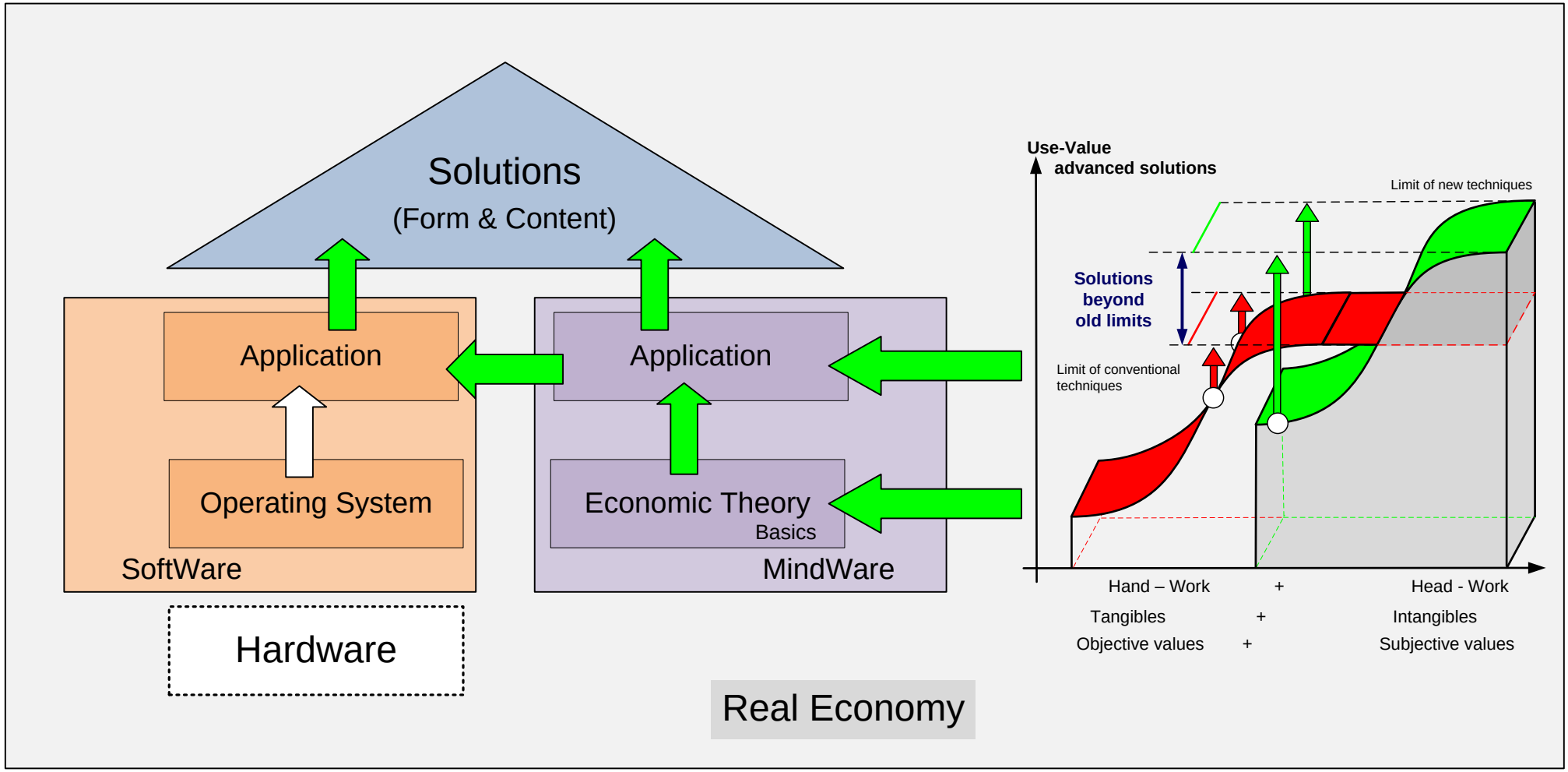
Smith: Wealth of Nations

Smith: Moral Sentiments

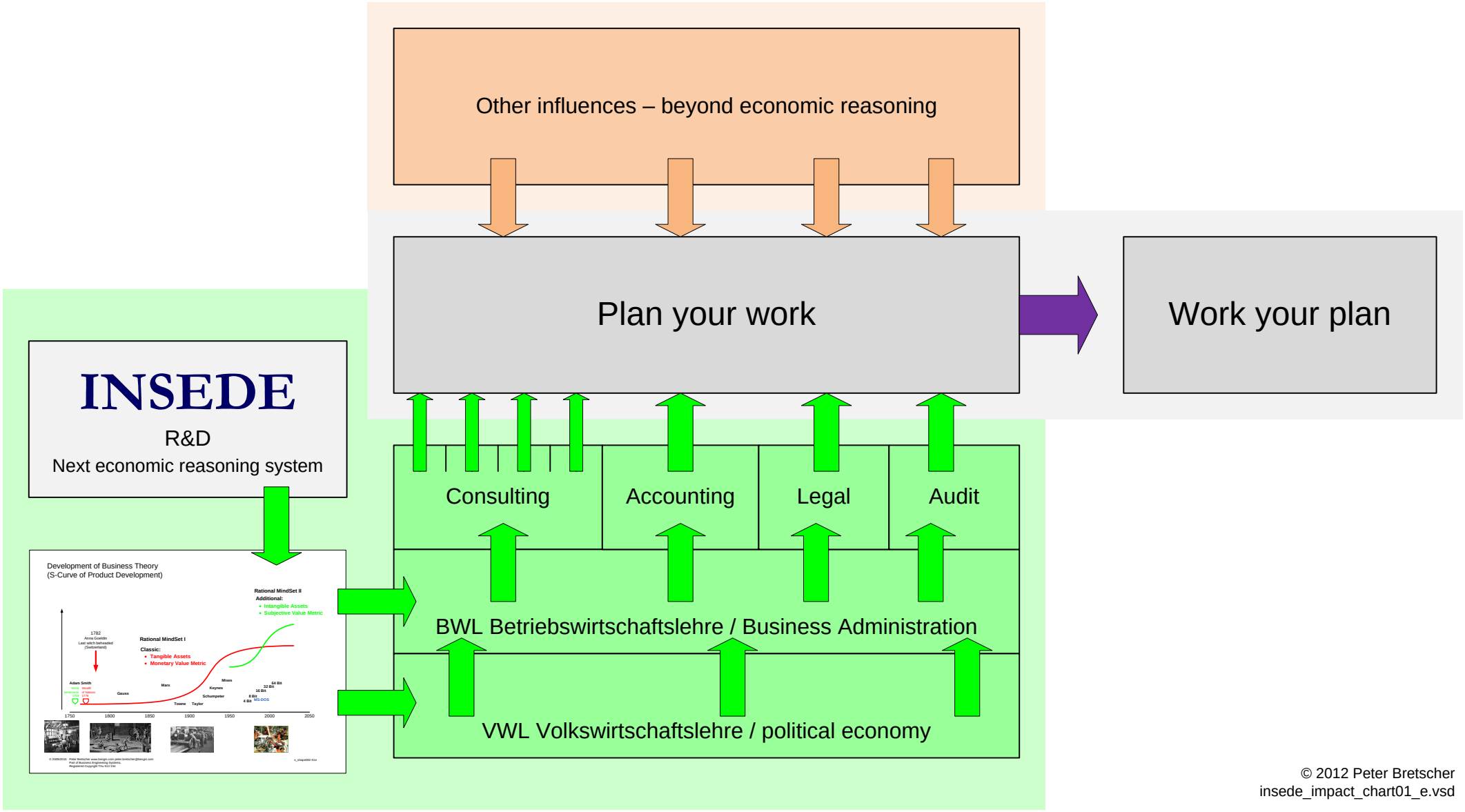
+ Intangible Assets
+ Vector based Value metrics (objective and subjective)


Use-Value
Limit of new techniques
Potential with
new techniques
Limit of conventional
techniques
Hand – Work
+
Head - Work
Tangibles
+
Intangibles

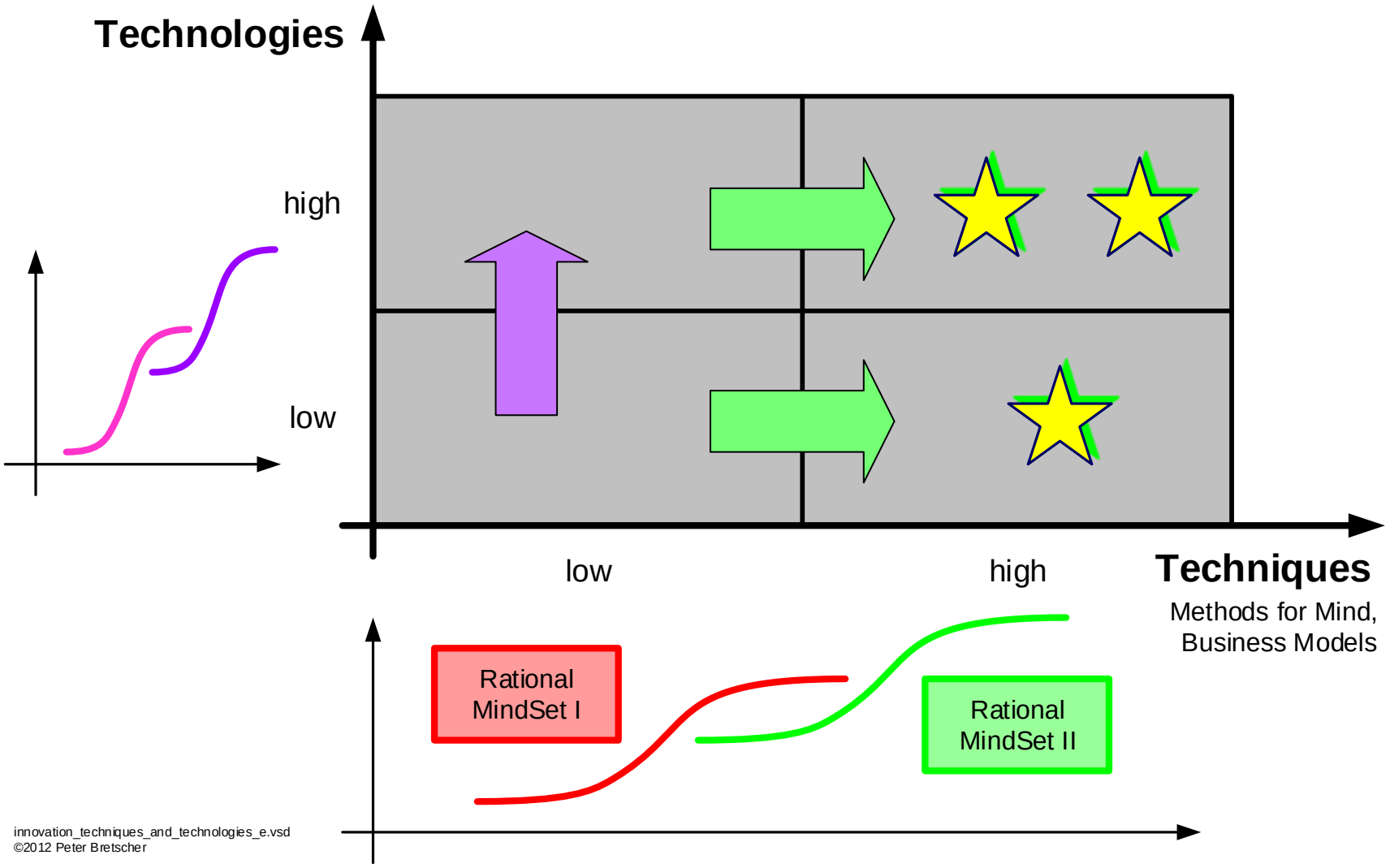
Professional solutions beyond classic limits



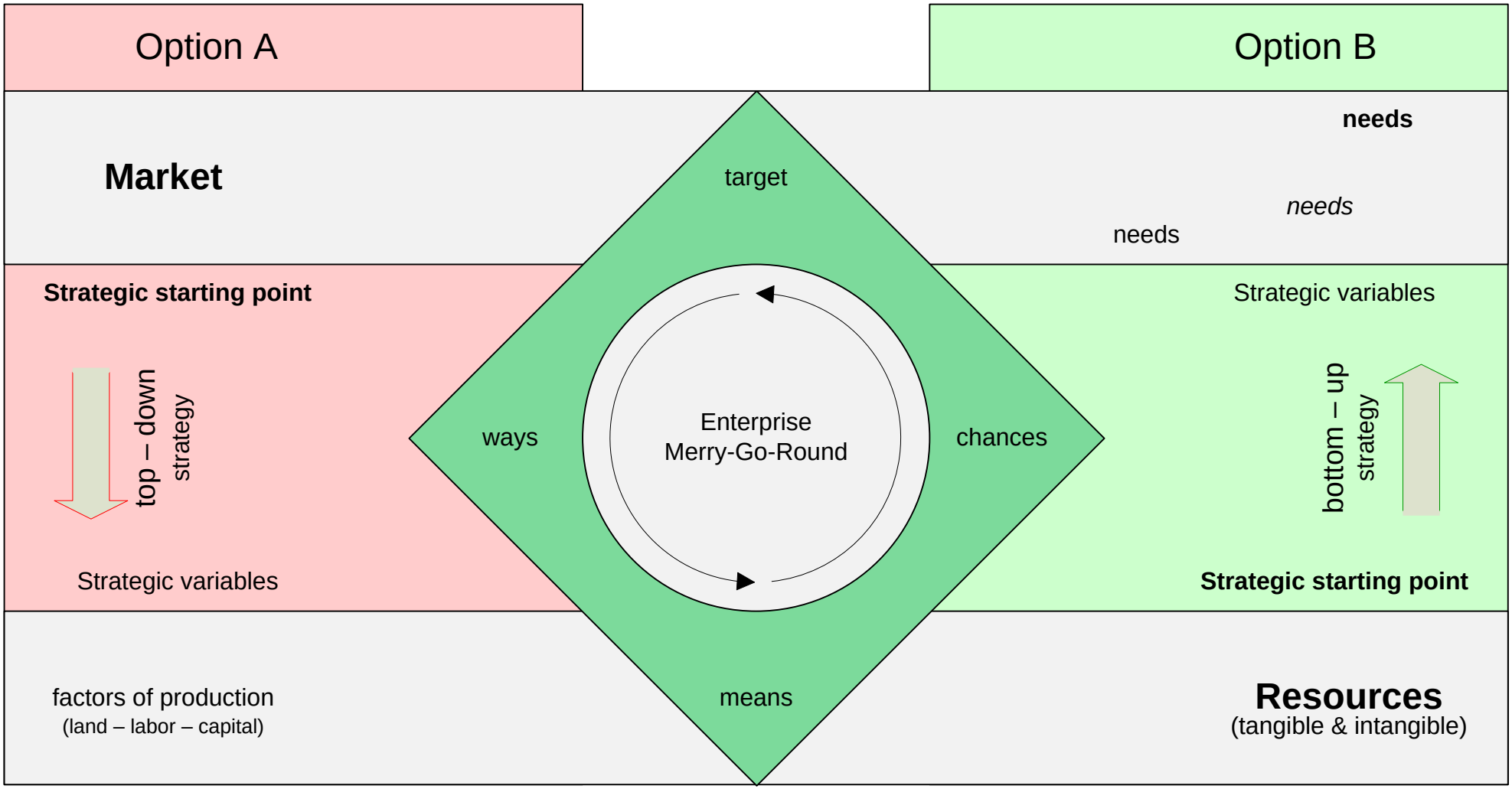
INSEDE enabling sustainability



Two Directions of Innovation (Technology and Techniques)



The two strategic business options in balance

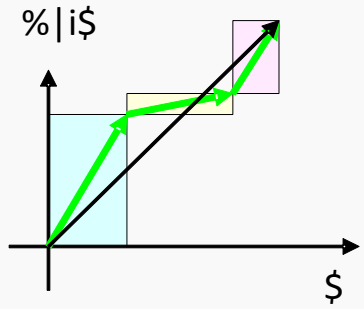


badmin_bengin_002_e.vsd

Development of (economic) Value-Metrics

Only multidimensional metrics makes it possible to treat multidimensional value aspects in that kind that coherence remains intact and visualizable (even objective and subjective values).

Possible to calculate with (and visualize) 2D-Values



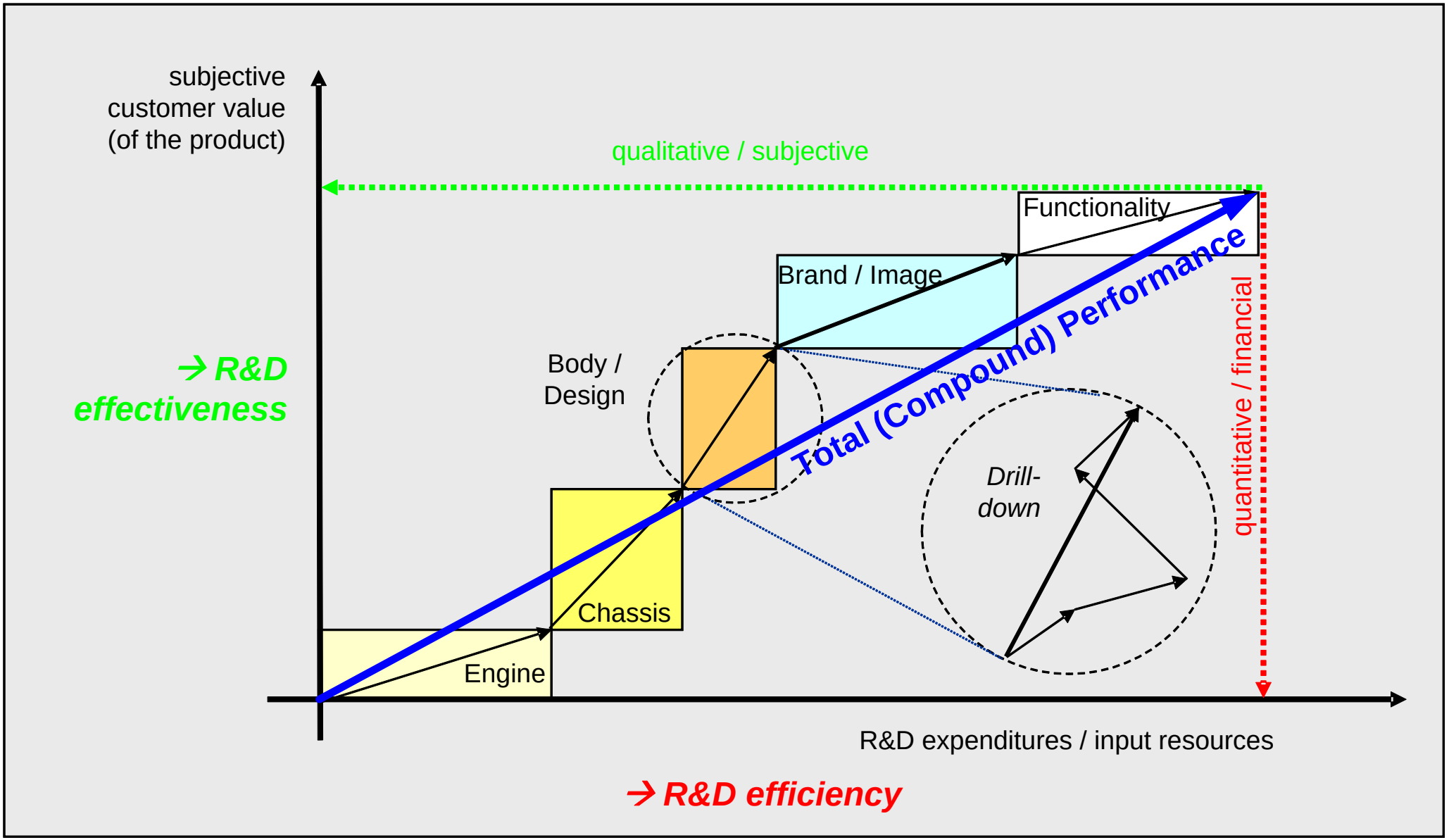
Why Metrics?

- comparing, comprehensible, reproducible
- Making rational communication easier.

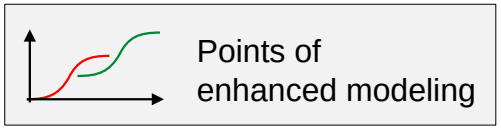
Difficult to visualize.

No tools and rules for numerical or graphical calculations.

 Peter Bretscher www.bengin.com
peter.bretscher@bengin.com
Part of Business Engineering Systems,


subjective
customer value
(of the product)
qualitative / subjective
Functionality
Brand / Image
Body /
Design
Chassis
Engine
Total (Compound) Performance
quantitative / financial
Drill-
down
R&D expenditures / input resources
→ R&D
effectiveness
→ R&D efficiency

Improved Business by enhanced models



Holistic AG

Products

Services

Rights

Triple – A – Strategy

Real System

Building model

Virtual
replacement of
model

Leadership tools

Mathematical
tools

qualitative
Models

quantitative
Models

subjective
criterion

objective
criterion

Field of stress for management

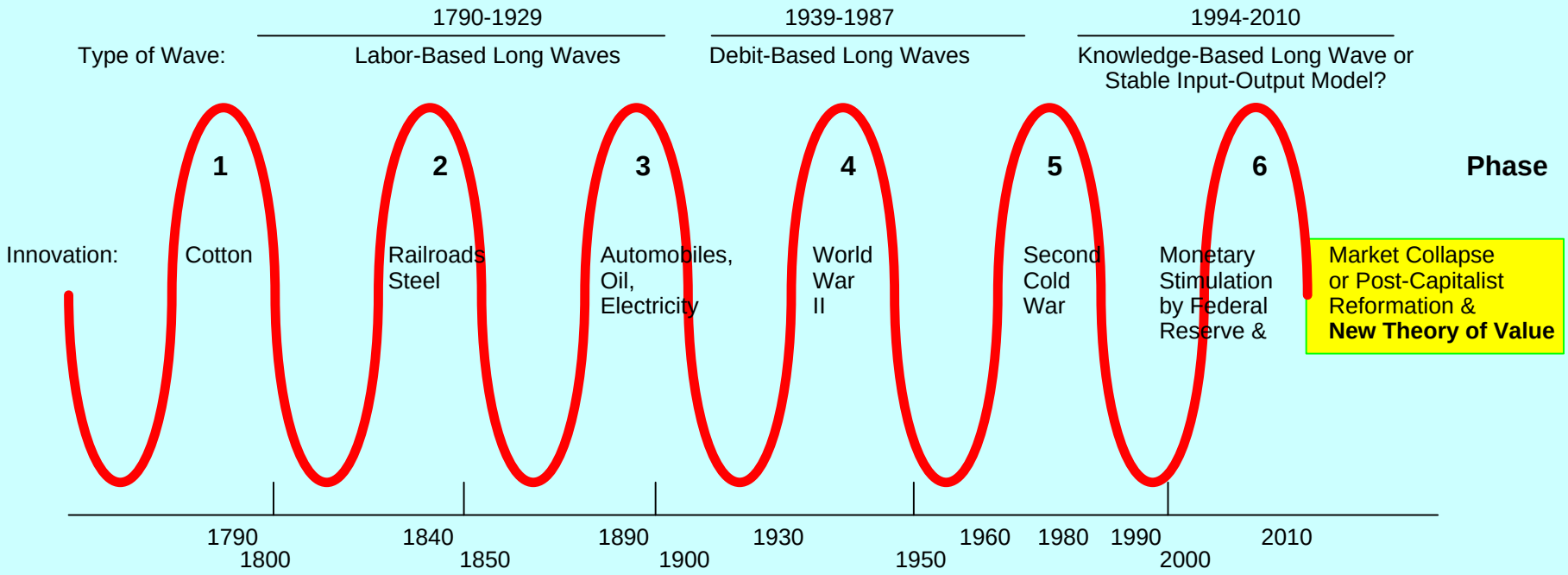
qualitative
Decisions-
criterion

quantitative
Decisions-
criterion

Potential – Chances – Threats – Consequences – Decision – Measures – Options

The long Road to Post-Capitalism: Schematic of Six Long Waves From 1790 to 2000

Theory of Value & Monetary Value:	Aggregate Labor & Capital	Aggregate Dept & Capital	Aggregate Technical Knowledge & Cohesive Cultural Base
Theoreticians:	Smith, Ricardo, Marx	Keynes	Leontieff, Greenspan & Stiglitz
Accumulation Model:	Labor & Capital	Fiscal Stimulation [War Dept] > Labor & Capital	Monetary Stimulation [Stock Market] > Information-Knowledge



Adam Smith 1723-1790

Karl Marx 1818-1883

Nikolai Kondratieff 1892-1938

John Maynard Keynes 1883-1946

Ernest Mandel 1923-1995

Wassily Leontieff 1905-1999

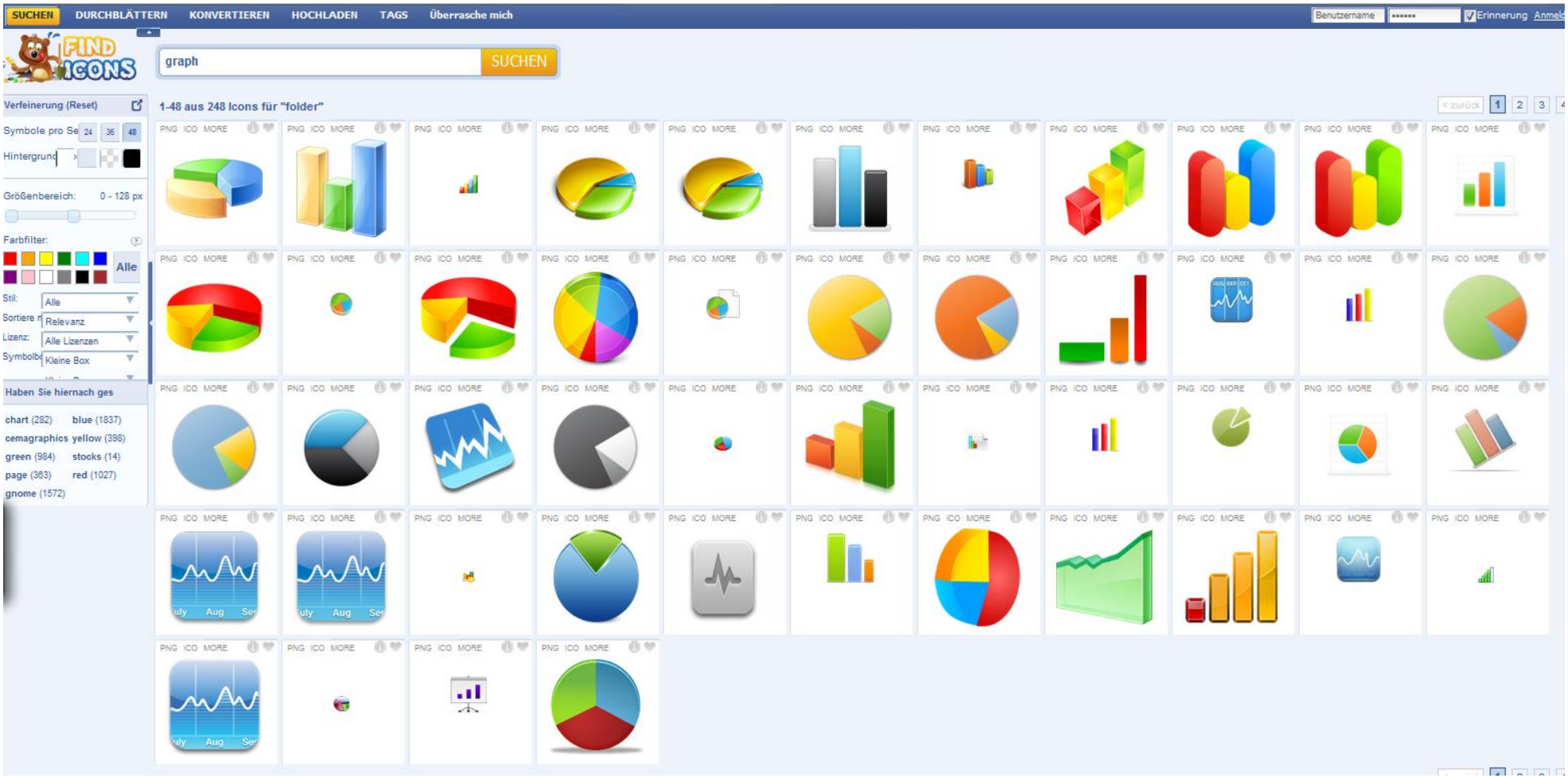
Alan Greenspan 1926-Present

Joseph E. Stiglitz 1943-Present

Carl Friedrich Gauss 1777-1855

New Theory of Numbers
(Complex Number = 2D-Vector on a plane with a real and an imaginary axis)

Based on graph of
Reuben L. Norman, Jr.
June 11, 1998
Link: June 14, 2011



www.findicons.com