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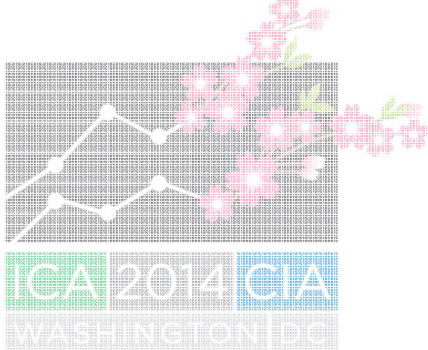
THE NEXT GENERATION

The evolution of a profession continues

Frank Genheimer

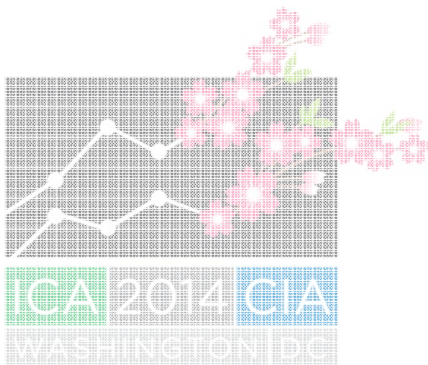
Abstract

The world is turning. Not faster than usual. But this does not hold true for the (life) insurance industry. The (life) insurance industry is in the beginning of massive changes as never before. The trends in the environment – just think about the regulatory framework, competition and cooperation, consumer and also the technological progress and the demanding economic environment – will induce changes in thinking, steering, acting and the entire organizational structure of an (life) insurance company. The area of tension (consumer, sales, service) is complex and will further fuel the expected changes in (life) insurance companies. Actuaries work directly on the "core service" in product management and product development. Actuaries take care of processes and monitor and manage company's risks. With highly sophisticated models they support the top management decisions without leaving aside the second pillar of all decisions: experience, intuition and foresight. Further on, they develop and control the business and transfer product know-how to sales and marketing. And, actuaries also work together with asset managers in order to meet the liabilities. It is therefore evident and crucial that actuaries will play a key role in shaping the (life) insurer's response to these changing demands. Is this just a future vision, fiction or already reality? An actuary today is not the same as an actuary in earlier days. And tomorrow the role will be different than today. One thing is sure: The actuaries of the next generation will come.



Elevator pitch (less than 56 seconds)

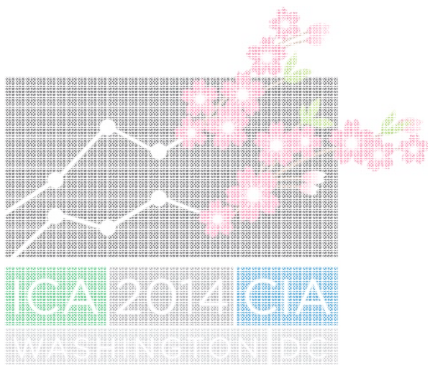
- **qualified Actuary since 2007**
- member of „**Actuarial Sciences for Africa**”
- **over ten years of experience**
 - life product development
 - life product strategy
 - life business development
 - structured products
 - insurance processes



Burj Khalifa, Dubai

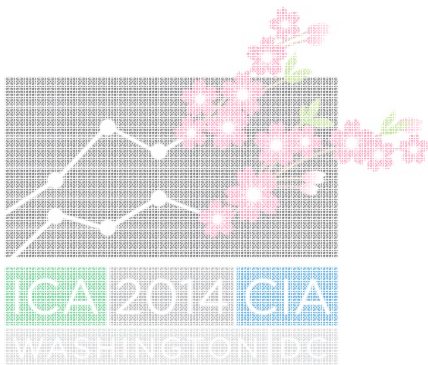
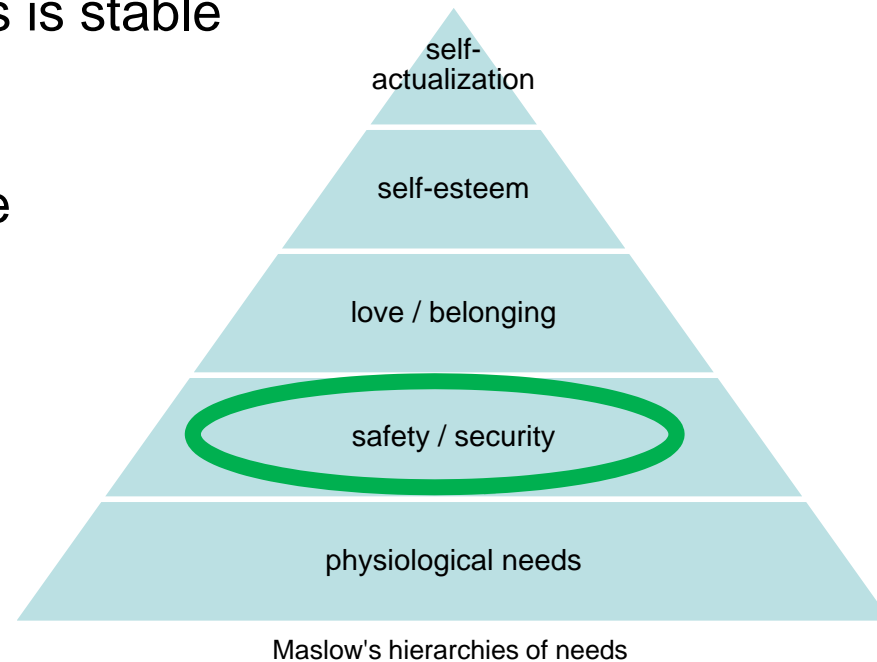
My theses

- **Actuaries are spread all over the value chain.**
- **THE actuary does not exist (any more).**
- **A more differentiated education & training is needed.**
- **A new self-image will develop.**
- **The hybrid actuary will come.**



The actuarial profession

- **fortune is linked to evolution of insurance business**
- **actuaries and insurance business are inseparably linked**
- **good luck:** insurance business is stable and everlasting
- **caution:** evolution of insurance business is triggered by environment more than ever



Everything started with risks!

- **need for insurance** has a long history
 - since dawn of civilization
 - progress triggered new insurance needs
- **core idea:** pooling of risks / risk sharing
- **actuarial questions** have a long history
 - compare for example novels from Jane Austen
 - actuarial debut work gives first answers: **life tables**
- first use of “actuary” as official title in the 18th century

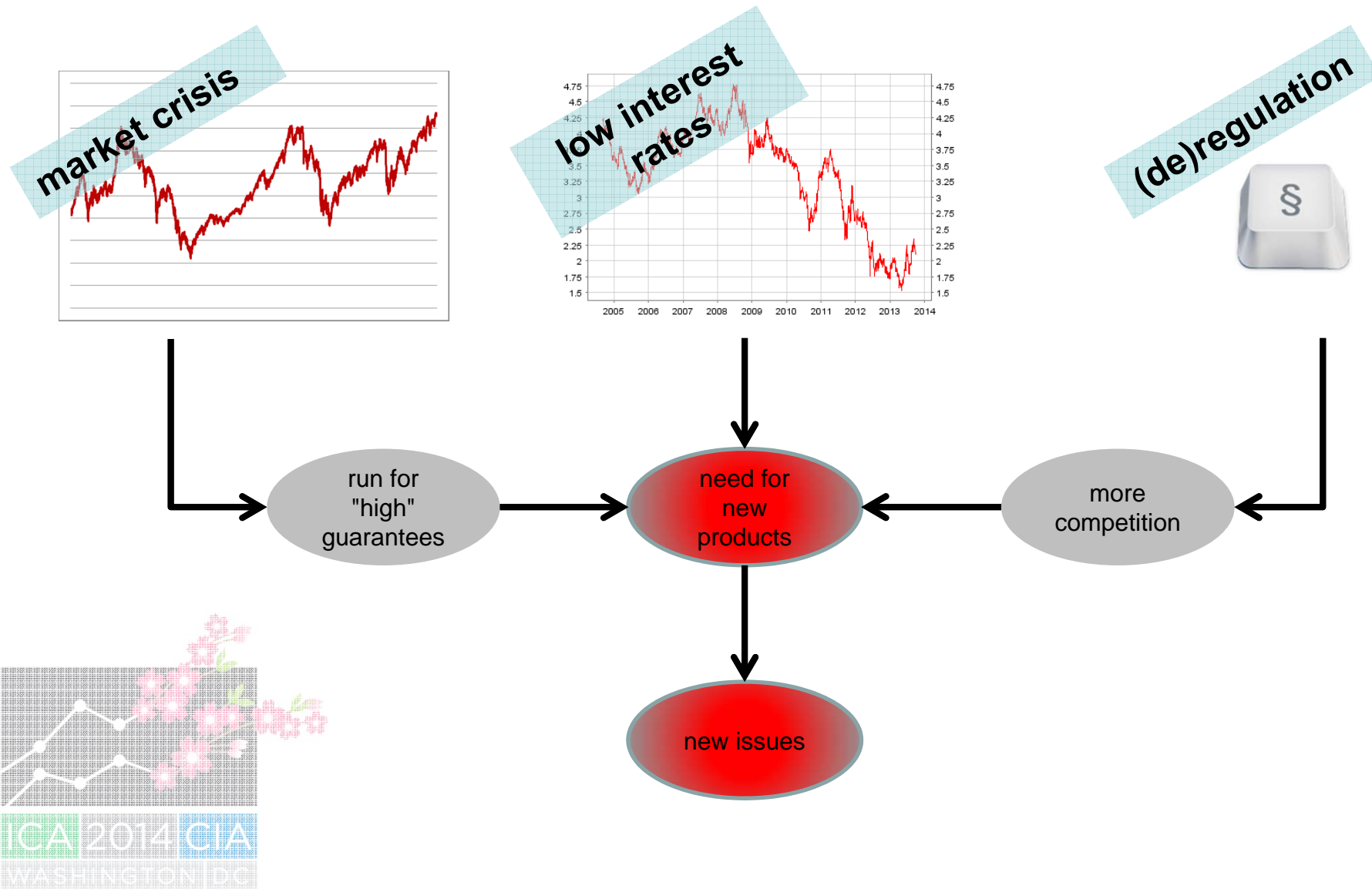
Table 2
Healthy life expectancy, for both sexes, based on self-evaluation of poor health: World Health Survey, Brazil, 2003

Age	Mortality		Traditional life table				Poor health		People-years		Life expectancy	
	Rate	Probability of death	Survivors	Years lived between ages x and x+1	Years lived, starting at age x	Life expectancy	Prevalence (%)	With self-rated health between ages x and x+1	With self-rated health between ages x and x+1	Healthy years	Years lived in poor health	Years lived in poor health
x	M_x	q_x	l_x	L_x	T_x	e_x	p_x	$100p_x/1000$	$100p_x$	$e_{x,h}$	$e_{x,u}$	$e_{x,u} - e_{x,h}$
05	0.02188	0.2094	100,000	897,654	5,021,439	54.34	5.58	475,829	4,789,731	47.29	4.96	12.8
10	0.00216	0.0108	99,863	492,644	4,958,963	49.83	2.90	471,611	4,259,320	43.80	4.83	13.7
15	0.00056	0.0107	97,996	486,867	4,443,214	45.34	3.90	444,254	3,785,885	38.63	6.71	14.8
20	0.00018	0.0108	96,750	479,933	3,954,450	40.99	4.79	427,284	3,315,331	34.29	4.60	16.3
25	0.00012	0.0214	95,223	471,529	3,476,517	36.51	7.80	404,275	2,810,207	30.54	4.37	17.4
30	0.00020	0.0396	93,189	458,940	3,030,469	32.25	10.99	408,644	2,410,812	26.54	6.11	19.0
35	0.00029	0.0406	90,421	442,961	2,546,448	28.14	13.72	382,183	2,027,287	23.41	5.74	20.4
40	0.00190	0.0879	86,757	421,219	2,133,887	24.21	15.89	354,674	1,645,106	18.96	5.28	21.8
45	0.01700	0.0816	81,730	391,988	1,683,268	20.58	17.12	324,671	1,240,638	15.79	4.79	23.3
50	0.02450	0.1134	75,265	353,666	1,260,280	17.19	21.65	274,210	961,714	13.83	4.32	25.2
55	0.03640	0.1477	66,801	304,174	836,173	14.11	25.26	242,344	686,511	10.34	3.77	26.7
60	0.05437	0.2293	55,268	243,275	622,492	11.44	28.14	184,554	443,999	8.22	3.41	29.8
65	0.10800	1.0000	42,042	168,165	389,765	9.26	33.33	129,443	329,443	6.17	3.09	33.3

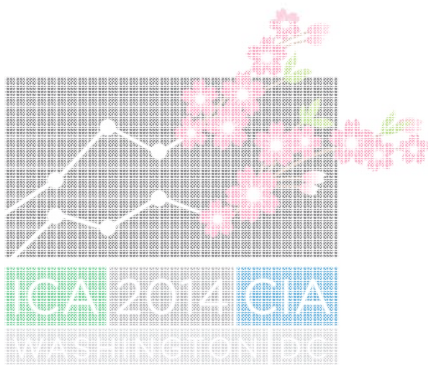
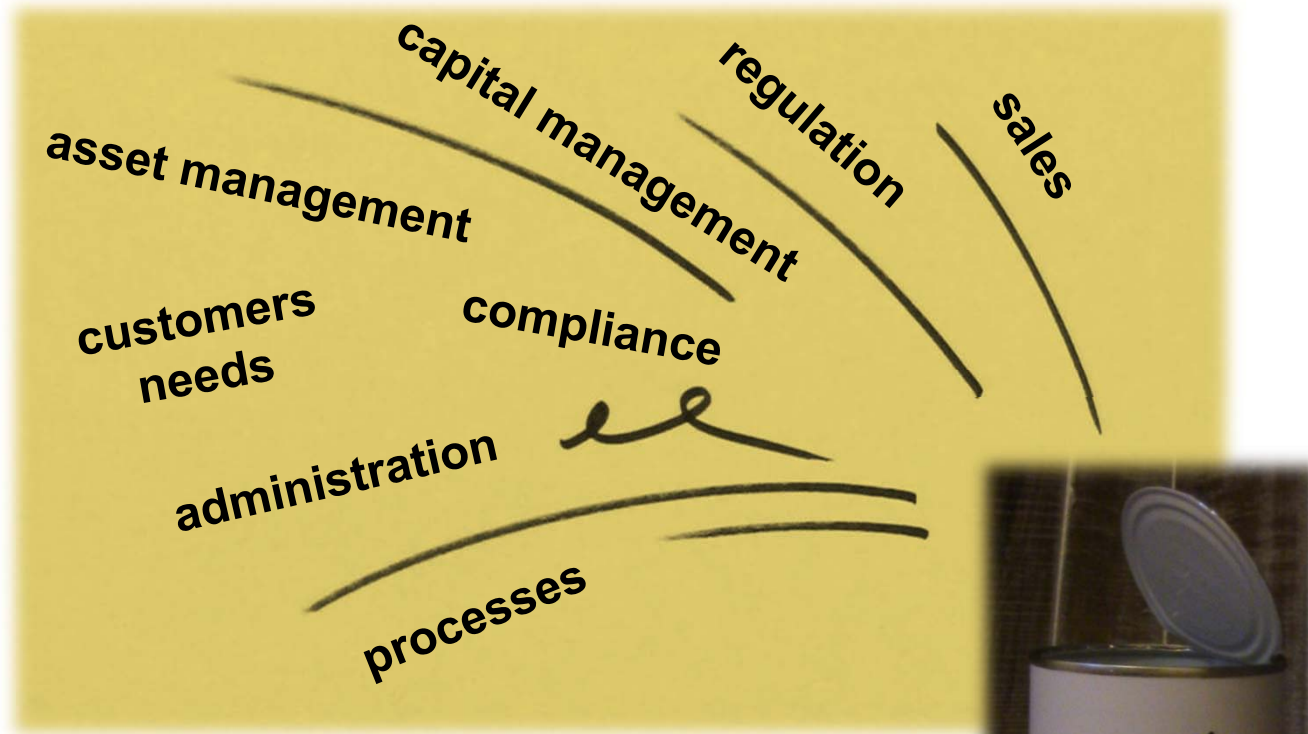
example of a life table



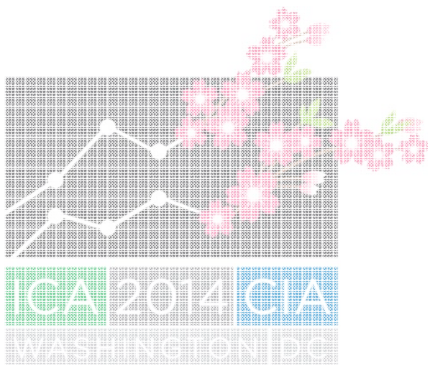
Then came fancy products ...



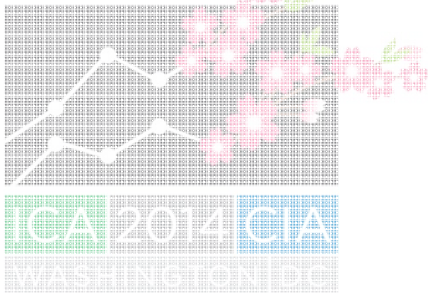
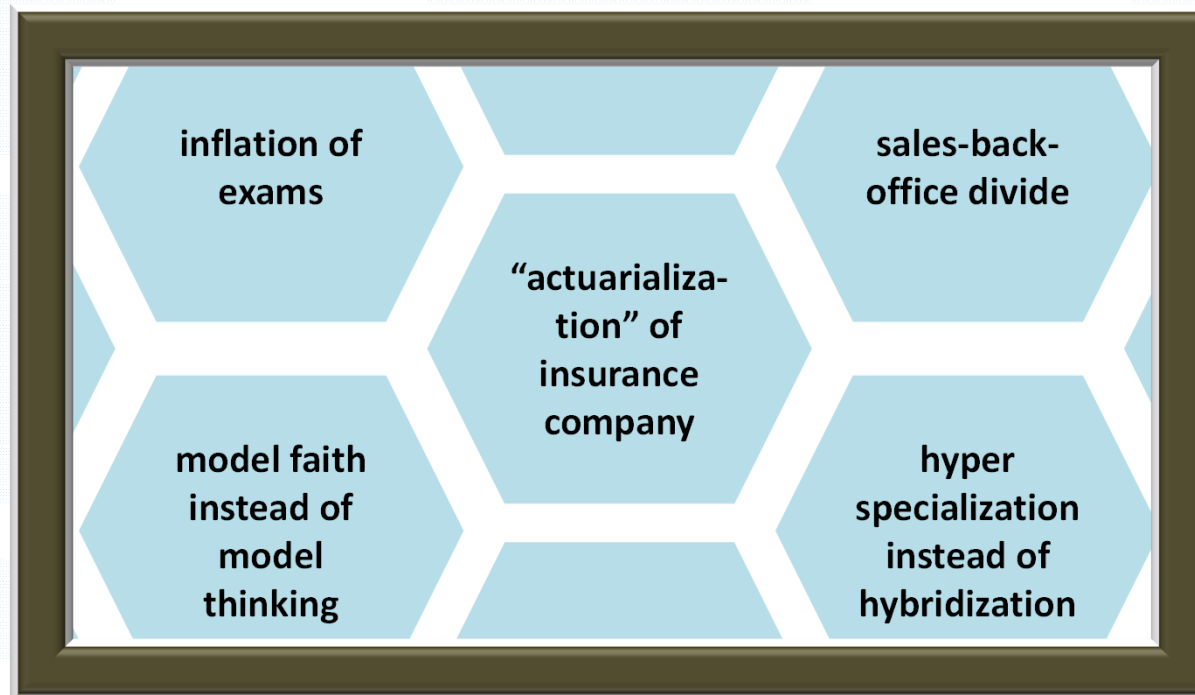
and the world turned out to be complex!



Genealogy

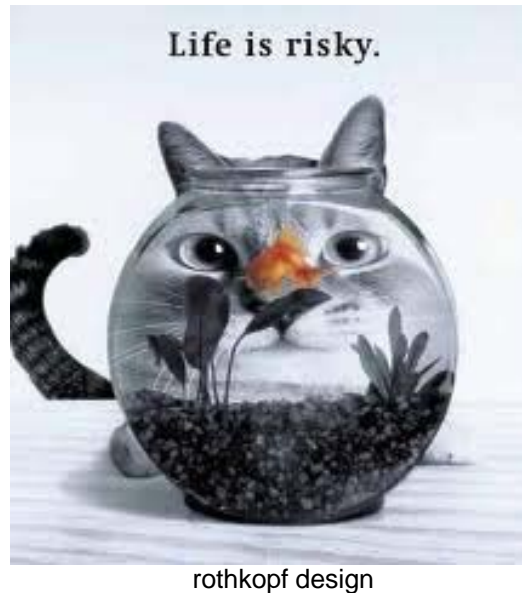


Critical self-reflection of a profession



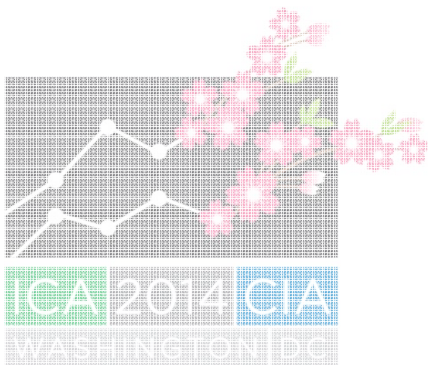
However, life is risky!

- **home made risks**
 - new products & issues
 - old habits, processes and thinking

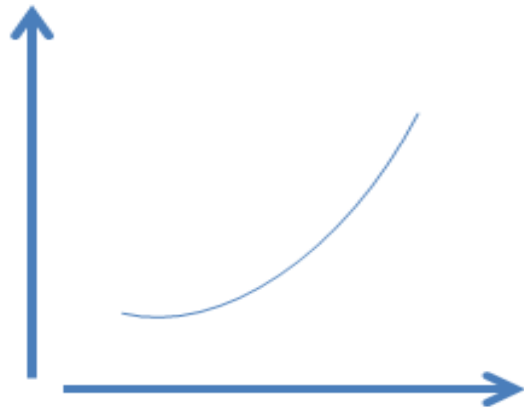


- **unindepented risks**
 - regulator prefers certain investments
 - market crisis fuels distrust

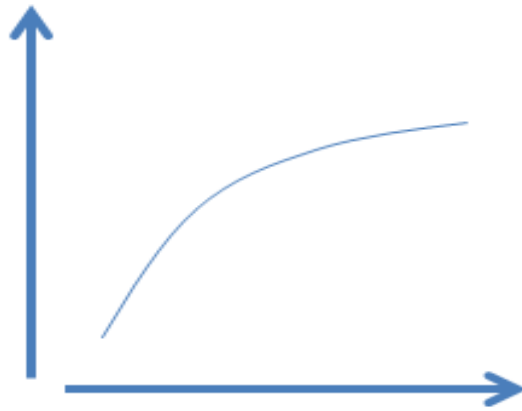
Each “new wave” reacts along the value chain finally on sales!



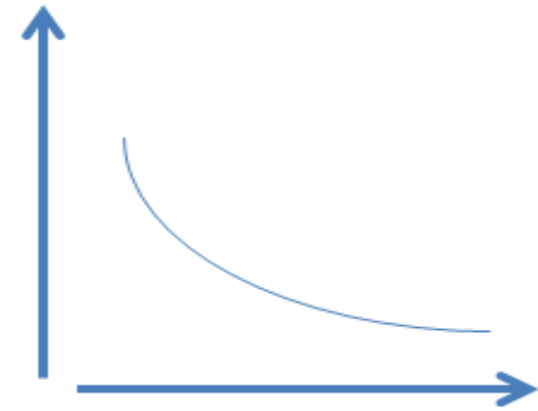
... and issues trigger evolution!



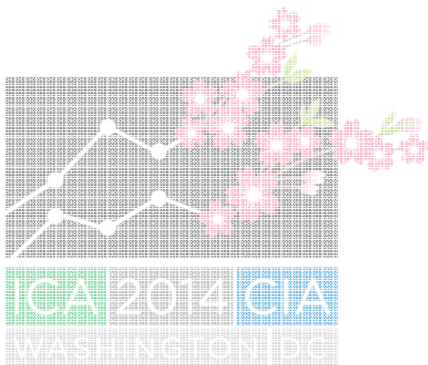
product diversity,
product complexity,
competition



market growth



time-to-market,
product life time



All we need is change!

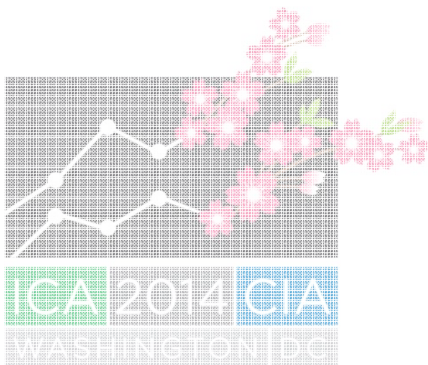
- **change requires overview**
 - hybridization of education, training and work
- **change requires communication**
 - scoring with soft skills and “hybrid-languaging”
- **change requires visions**
 - think out of the box instead of “incestuous” believes
- **change requires leadership**
 - progress beyond specialist career

- ❖ **change takes time** and is **uncomfortable**
- ❖ **very first step:** create awareness and vision
- ❖ **some steps later:** adjustment of education guidelines



My theses – now for discussion!

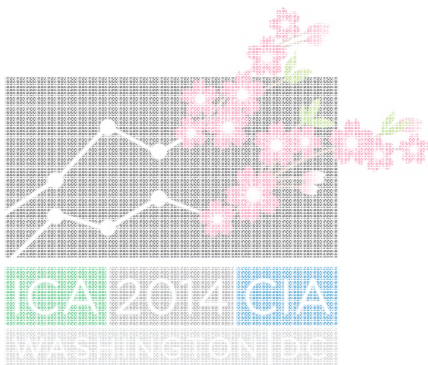
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Thank you very much for your time!



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Disclaimer

The present slides are compiled for the International Congress of Actuaries (2014, Washington D.C. USA) by myself. They only develop the full significance in conjunction with my presentation. It is not my aim and primary goal to review the history of actuaries. Slides and corresponding presentation are based on my personal opinion. It neither reflects the opinion of any association which I am member of nor the opinion of my current or any former employers. All information is supplied without any liability. I used within my presentation the following external graphs and pictures:

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7	Interest Rates 10y Eurozone Triple A (Chart)	European Central Bank http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=165.YC.B.U2.EUR.4F.G_N_A.SV_C_YM.SR_10Y
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