Convergence analysis of approaches developed to measure societal progress

Rutger Hoekstra (Statistics Netherlands)

Introduction: Statistics Netherlands and the measurement of SD

2007	2008	2009	2010	2011	2012	2013	2014	Partners
Sustainability Monitor for the Nethelands								Planning Bureaus: CPB (Economic) PBL (Environmental) SCP (Social)
		Conference of European Statisticians Recommendations On Measuring Sustainable Development						UN-ECE OECD Eurostat +10 countries
								FP7 project Lead together with ISTAT +17 other institutes

2

Progress? Where are we now?

- Hundreds of systems
  - Many terms: Wellbeing, Progress, Beyond GDP, Sustainable Development, Green Growth, Corporate Social Responsibility etc.
  - Many scale levels: National, city, regional, company, product
- Differences of opinion
  - Composite indicators vs. indicators sets
  - Conceptual basis vs. stakeholder based
  - Environment vs. broad sustainability
- Good and bad news:
  - Good News: A lot of energy and dynamism
  - Bad News: Mixed message to society
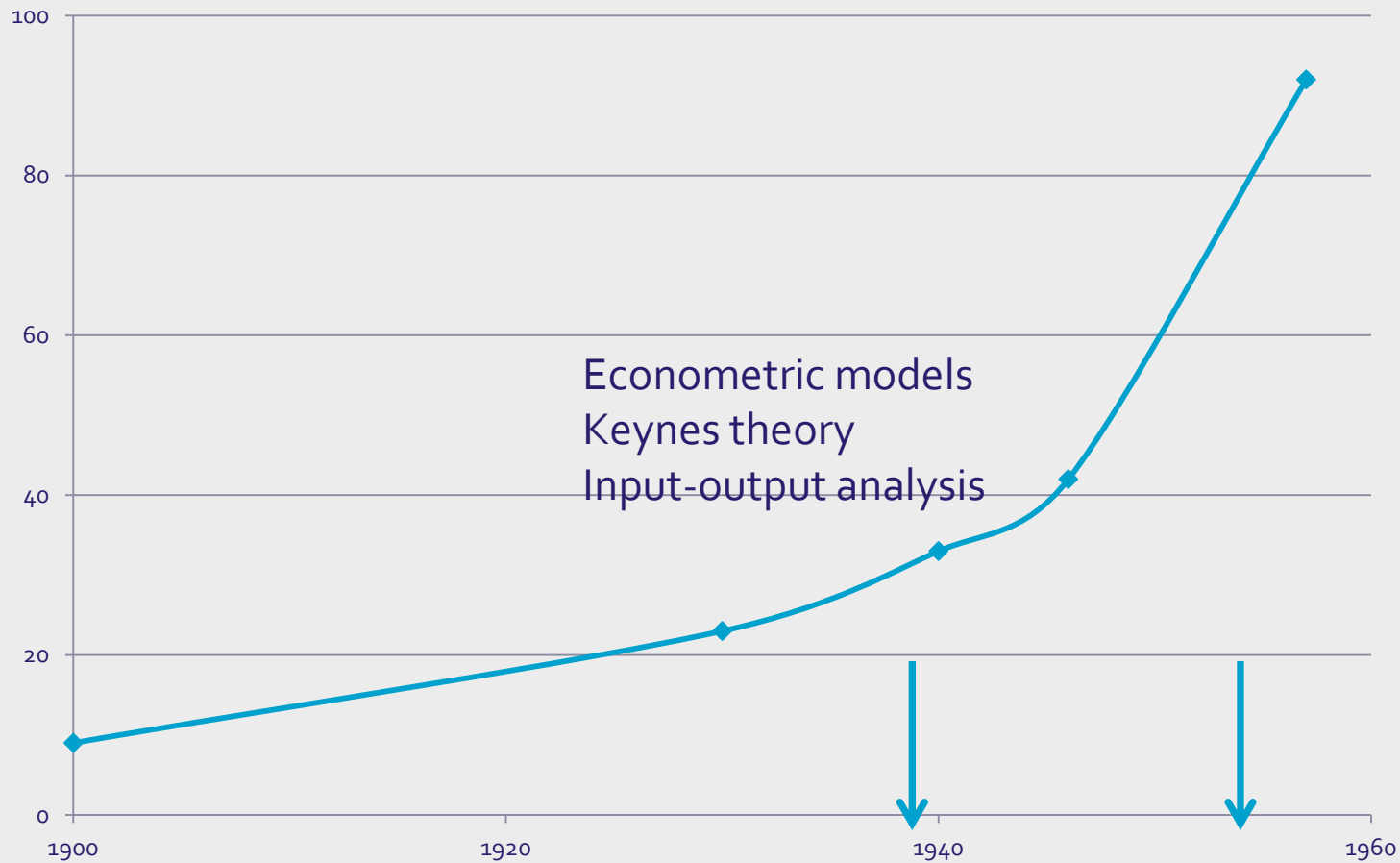- **What is needed: A process of convergence**

Why convergence?

- Arguments for convergence
  - Clarity towards society
  - International comparability
  - Working together
- Arguments against convergence
  - Different preferences (Stakeholder involvement)
- Misconceptions
  - It is just a matter of choosing one of the current systems
  - Convergence leaves no flexibility
  - This is the golden ticket to success in GDP and Beyond
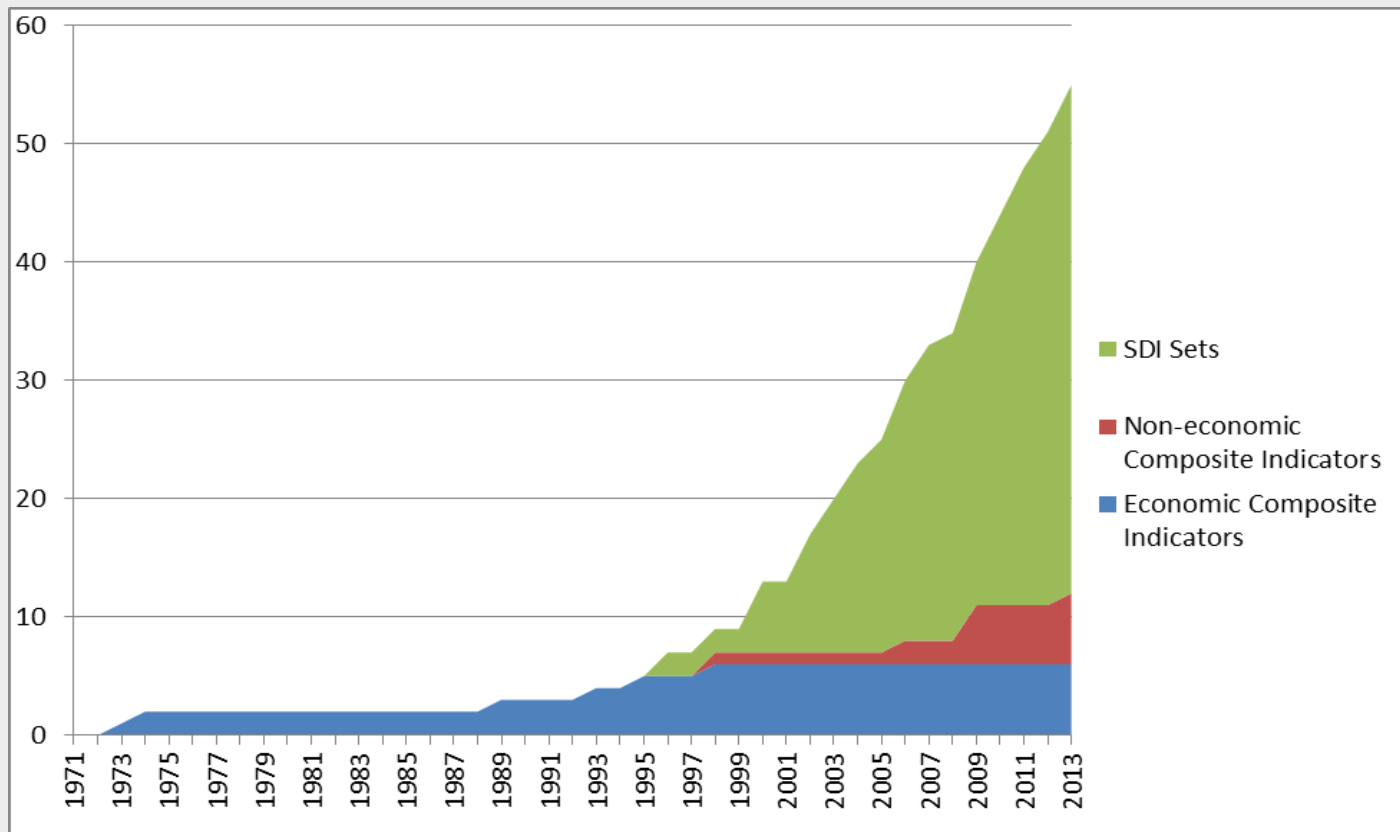 - The convergence process needs to be started now

4

Understanding convergence

1. History of GDP
   - How did the system of national accounts converge?
2. History of measuring SD
   - Where are we now in the convergence process?
3. Comparison of measurement systems for SD
   - How different are the current systems?
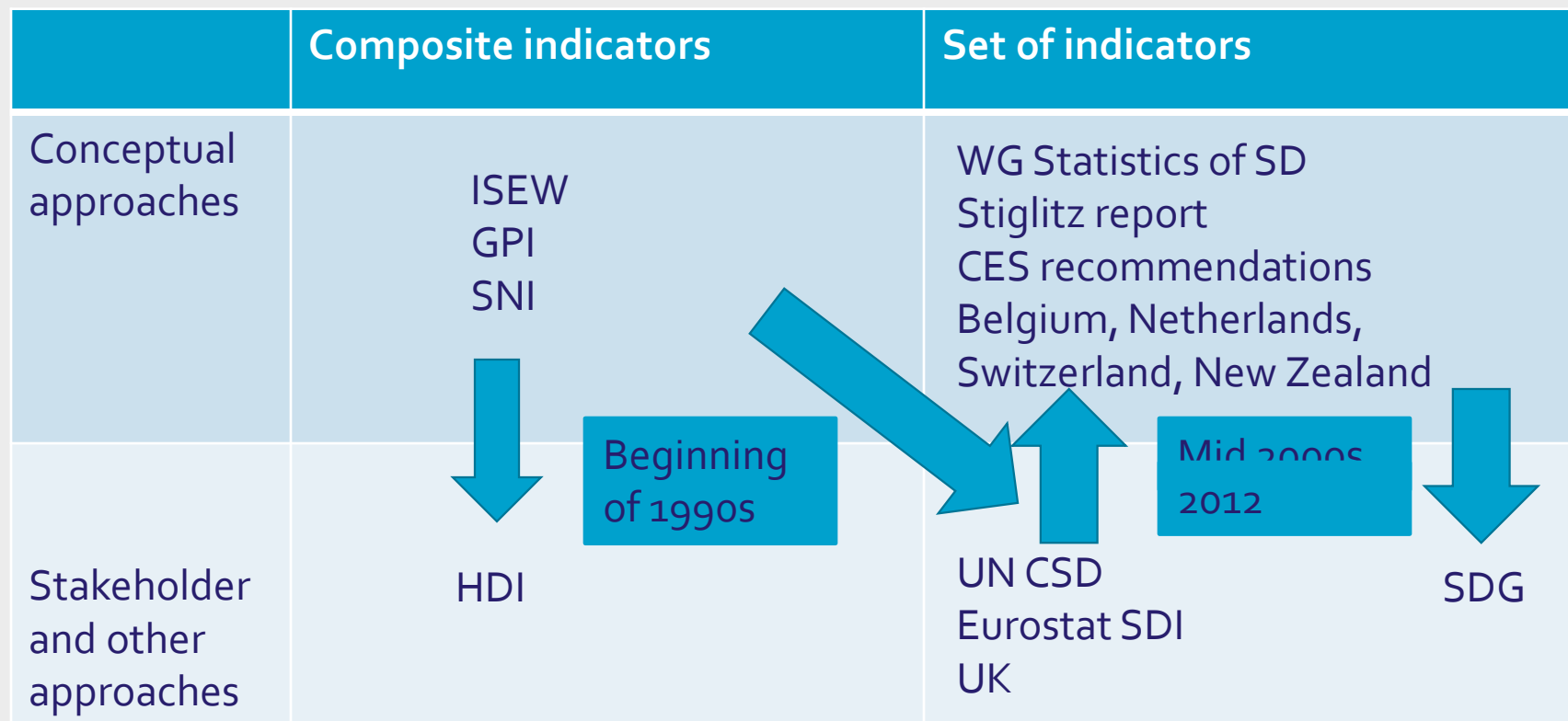4. Moving forward

History of GDP:
Countries with NI estimates

Econometric models
Keynes theory
Input-output analysis

History of measuring SD in three figures: Figure 1

History of measuring SD in three figures: Figure 2

	Composite indicators	Set of indicators
Conceptual approaches	ISEW GPI SNI	WG Statistics of SD Stiglitz report CES recommendations Belgium, Netherlands, Switzerland, New Zealand
Stakeholder and other approaches	HDI	UN CSD Eurostat SDI UK

Beginning of 1990s

Mid 2000s 2012

SDG

History of measuring SD in three figures: Figure 3

Progress	Sustainable development						Green Growth
	"Here and now"	"Later" (Sustainability)				"Elsewhere"	
	Well-being	Economic capital	Natural capital	Human capital	Social capital		
		Capital approach /Wealth accounting (World Bank) (mid 90s)					
	UNECE/Eurostat/OECD WG on Statistics on Sustainable development (2005-2009)						
Stiglitz-Sen-Fittousi report (2009)/Sponsorship Group (Eurostat/INSEE)							
	CES recommendations (UNECE-Eurostat-OECD (2009-2013)						

Conceptual model is:
-Consistent to National Accounts
-Linked to economic models

Comparison of measurement of SD: Composite indicators

59%

Theme	SNBI	CIW	GPI	FSP	ISEW	FEEM	IEWB	SSI	MEW	GS	SCDI	SNI	
TH2. Consumption and income	■	■	■	■	■	■	■	■	■	■	■	■	12
TH6. Education	■	■	■		■	■	■	■	■	■	■		10
TH10. Land and ecosystems	■	■	■	■	■		■	■		■	■	■	10
TH12. Air quality	■	■	■	■		■	■	■		■	■	■	10
TH14. Energy resources	■	■	■	■	■	■	■	■		■		■	10
TH4. Health	■	■		■	■	■	■	■	■		■		9
TH11. Water	■	■	■	■	■		■	■		■		■	9
TH15. Mineral resources	■	■	■	■	■		■			■		■	9
TH20. Financial capital	■		■	■	■	■	■	■		■			9
TH5. Labour	■	■	■	■		■	■		■				8
TH13. Climate		■	■		■	■	■			■	■	■	8
TH18. Physical capital	■		■	■	■	■	■		■				7
TH8. Leisure	■	■	■		■		■		■				6
TH17. Institutions				■	■	■	■	■	■				6
TH16. Trust	■	■	■				■		■				5
TH9. Physical safety	■	■	■										4
TH3. Nutrition						■		■	■		■		3
TH7. Housing	■	■							■				3
TH19. Knowledge capital				■		■	■						3
TH1. Subjective well-being													0
	15	15	14	14	13	13	12	12	9	9	8	7	

Comparison of measurement of SD: Indicator sets

Comparison of measurement of SD: Popular indicators

Themes	Most used indicator
TH1. Subjective well-being	Life satisfaction
TH2. Consumption and income	Gross Domestic Product
TH3. Nutrition	Drinking water
TH4. Health	Life expectancy at birth
TH5. Labour	Unemployment rate
TH6. Education	Educational attainment
TH7. Housing	Housing quality
TH8. Leisure	Leisure time
TH9. Physical safety	Recorded crime
TH10. Land and ecosystems	Protected areas
TH11. Water	Water quality
TH12. Air quality	Acidifying emissions
TH13. Climate	GHG emissions
TH14. Energy resources	Energy intensity
TH15. Mineral resources	Generation of waste
TH16. Trust	Voluntary work
TH17. Institutions	Voter turnout in elections
TH18. Physical capital	Gross fixed capital formation
TH19. Knowledge capital	R&D expenditures
TH20. Financial capital	Government debt

Comparison of measurement of SD: Country differences

Biased to higher income countries	Biased to lower income countries
Obesity prevalence	Wastewater treatment
Official Development Assistance	Sanitation
Physical exercise	Drinking water
Smoking prevalence	Land degradation
Mental well-being	Biofuel
Voluntary work	Literacy rate
Family/friends/neighbours	E-government

Moving forward: Convergence

SCALE LEVEL	STAKEHOLDER	Sustainable development, Wellbeing, Happiness, Sustainability, Green Growth, Resource efficiency, Corporate Social Responsibility, Integrated reporting, Footprint etc.
National	Government	
Regional	Regional government	
Company	Companies	
Product	Consumers	

Conceptual convergence

Horizontal convergence

Vertical convergence

Example:
System of Environmental and Economic accounts (SEEA)
Global Reporting Initiative

Example:
Measuring what matters (UK)
CBS/GRI/TSC (The Netherlands)

Conclusions

- Convergence takes a long time, but is already taking place
- Convergence needs institutional sponsors
- Despite their differences there are many similarities of systems
- More reserach into convergence rather than new systems

More information

- Sustainability Monitor for the Netherlands
  - www.monitorduurzaamnederland.nl
- CES recommendations
  - http://www.unece.org/fileadmin/DAM/stats/publications/2013/CES_SD_web.pdf
- Convergence report
  - http://www.eframeproject.eu/fileadmin/Deliverables/Deliverable2.5.pdf
- Alignment project
  - http://measurewhatmatters.info/news/aligning-sustainable-development-metrics-at-national-company-and-product-levels/