MOVING **TOWARD** A **SUSTAINABLE** CALIFORNIA

exploring livability, accessibility & prosperity

Prosperity Measures

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Agenda

The purpose of this working paper is to provide a stronger understanding of possible metrics that Caltrans might use to measure prosperity, accessibility, and livability …

➢ Tying data to goals, are we trying to affect change, or simply monitoring?

➢ SANDAG's 1990 -2008 Prosperity Measures

➢ SANDAG's 2016 Prosperity Measure

I never Guess........

... It is a capital mistake to theorize before one has data.

Insensibly one begins to **twist facts to suit theories**, instead of **theories to suit facts**.

Sir Arthur Conan Doyle

Business Intelligence

70-80% of BI projects fail (Gartner)

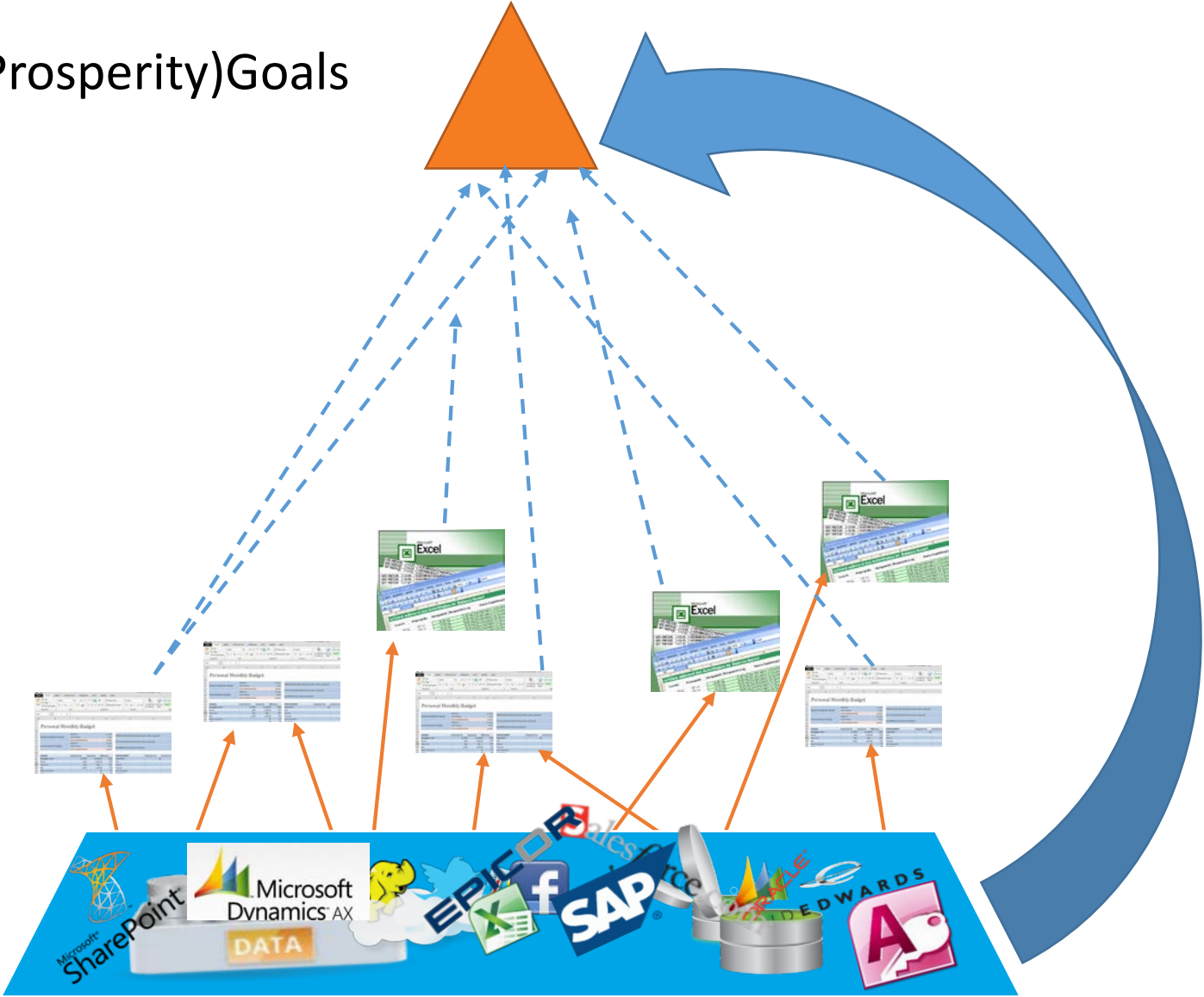Characteristics of companies with Best in Class BI implementations...

They use data to affect change and drive better business decisions, instead of collecting data and simply reporting on it.
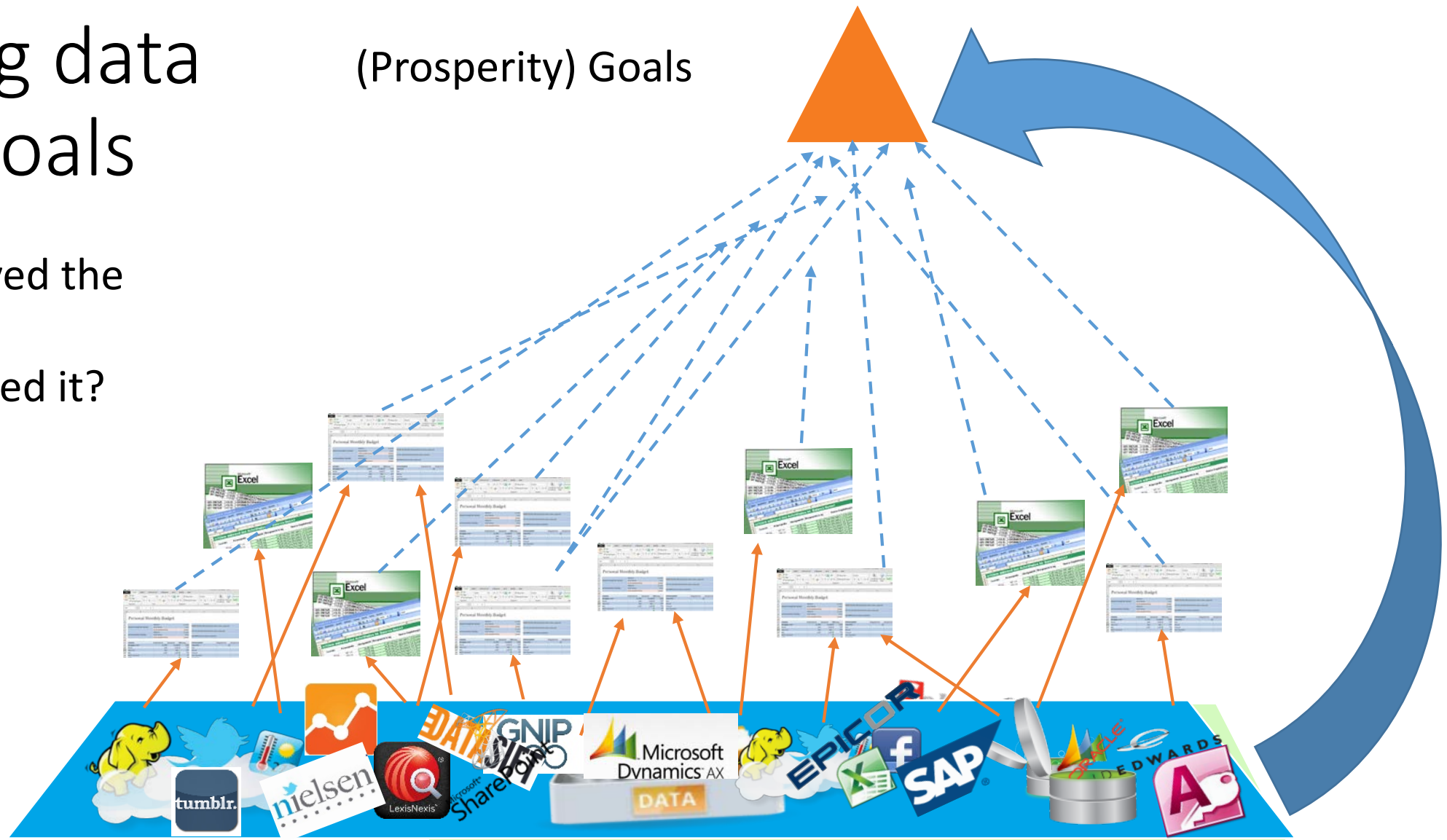
Tying data to Goals

Tying data to Goals

(Prosperity) Goals

Have we solved the problem?
Or exacerbated it?

Data Sources

Tying data to Goals

(Prosperity) Goals

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Data Sources

San Diego Regional Economic Prosperity Strategy
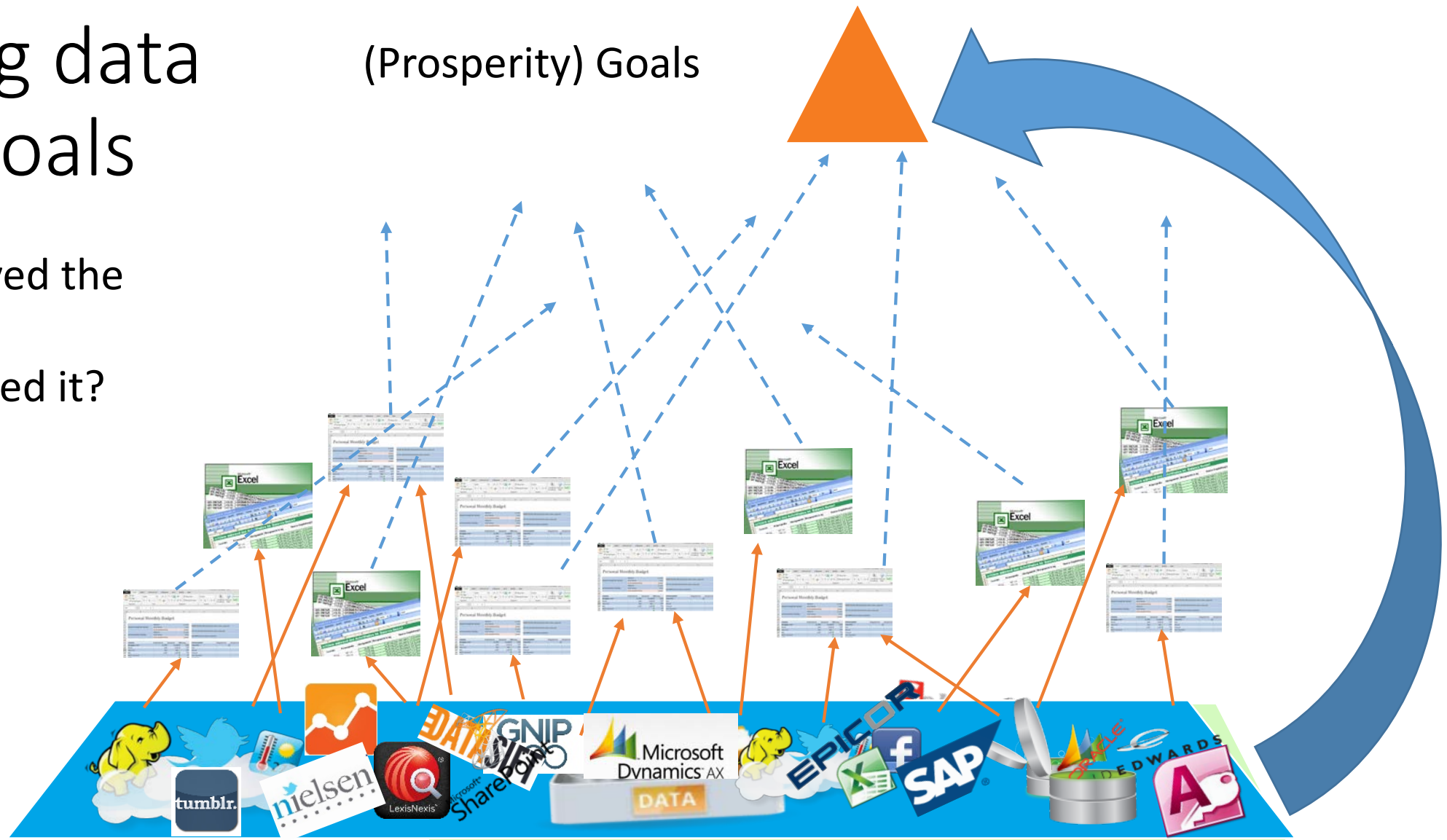
➢ 10 Strategic goals

➢ 27 Recommendations

➢ Include different aspects of the economy

  o Water, Energy, Land Use, Housing, Education, Border region –

➢ Transportation related goal

  o "Produce a goods movement strategy for the San Diego Region to improve our capability to participate in international trade and help increase mobility for the regions residents"

2008 Monitoring Performance

➢4 Indicator Groups

➢18 Categories of Variables

➢Questions being answered

- o How well is the region performing?

- o How well are the businesses in the region faring?

- o What resources are available to support the region's future economic and social well being?

- o What is the capacity of the region's infrastructure to ensure its economic and social well being in the future?

Strategic Prosperity Assessments System

➢ Indicator Group 1 - Economic and Social Performance

➢ Indicator Group 2 - Business Vitality

➢ Indicator Group 3 - Resources for Economic Growth

➢ Indicator Group 4 - Regional Infrastructure Capacity

STRATEGIC PROSPERITY ASSESSMENTS SYSTEM

➢ Indicator Group 1 - Economic and Social Performance
  o Population
  o Employment
  o Wages
  o Income
  o Average Wage
  o Cost of Living

STRATEGIC PROSPERITY ASSESSMENTS SYSTEM

➢ Indicator Group 2 - Business Vitality

- o Gross Regional Product
- o Job Quality
- o Traded Clusters (Engines of Economic Growth)
- o International Trade and Goods Movement
- o Minority and Women Owned Businesses
- o Venture Capital

STRATEGIC PROSPERITY ASSESSMENTS SYSTEM

➢Indicator Group 3 - Resources for Economic Growth
- o Education
- o Housing

STRATEGIC PROSPERITY ASSESSMENTS SYSTEM

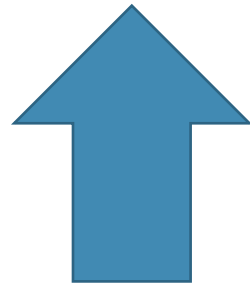➢ Indicator Group 4 - Regional Infrastructure Capacity

- o Freeways
- o International Land Ports of Entry
- o Airports
- o Energy

10 Goals

27 Recommendations

4 Indicator Categories

18 Categories of Variables

100's of Variables

Tying data to metrics

(Prosperity) Goals

Critical Success Factors

"Program Level" KPIs and KRI's

Departmental Metrics
(PI's and RI's)

Business Processes

Data Sources

Private Sector, tying goals to data to metrics

Goals — Increase customer retention rate

Critical Success Factors — Improve customer service

Corporate KPIs and KRI's — Monthly customer churn rate

Departmental Metrics
(PI's and RI's)

- Faster problem solving
- More Information online
- Less Phone wait

Business Processes

- Target 24 hrs for resolution
- 20% per month for 5 months
- 2 minute average wait time

Data Sources

- Calculation from the CRM
- Requires an inventory and plan
- Intercept Phone System data

2016 Prosperity Strategy

"Produce a goods movement strategy for the San Diego Region to improve our capability to participate in international trade and help increase mobility for the regions residents"

Strategic Goal — Improve Regional Transportation

Critical Success Factors
- Build light rail line from Downtown to UCSD
- Add managed lanes in key corridors

KPIs and KRI's (indicator groups) — Ratio of people in SOV to Alternative Methods of transportation

Departmental Metrics (supporting metrics)
- Ridership on route XXX
- Fare box recovery rates

Business Processes Process Owner
- ? MTS Trolley/Bus administrator

Data Sources
- Ridership data
- Fairbox collections

PROSPERITY 2016

➢Continued monitoring comparing "Us" to "Peers"

➢Continued collection of a reduced set of indicators (Continuity)

Addition of:

➢Holistic Composite Metric (Genuine Progress Indicator)

➢Tie Metrics to Goals, attempt to define "process owner"

➢Regular updates (Annual)

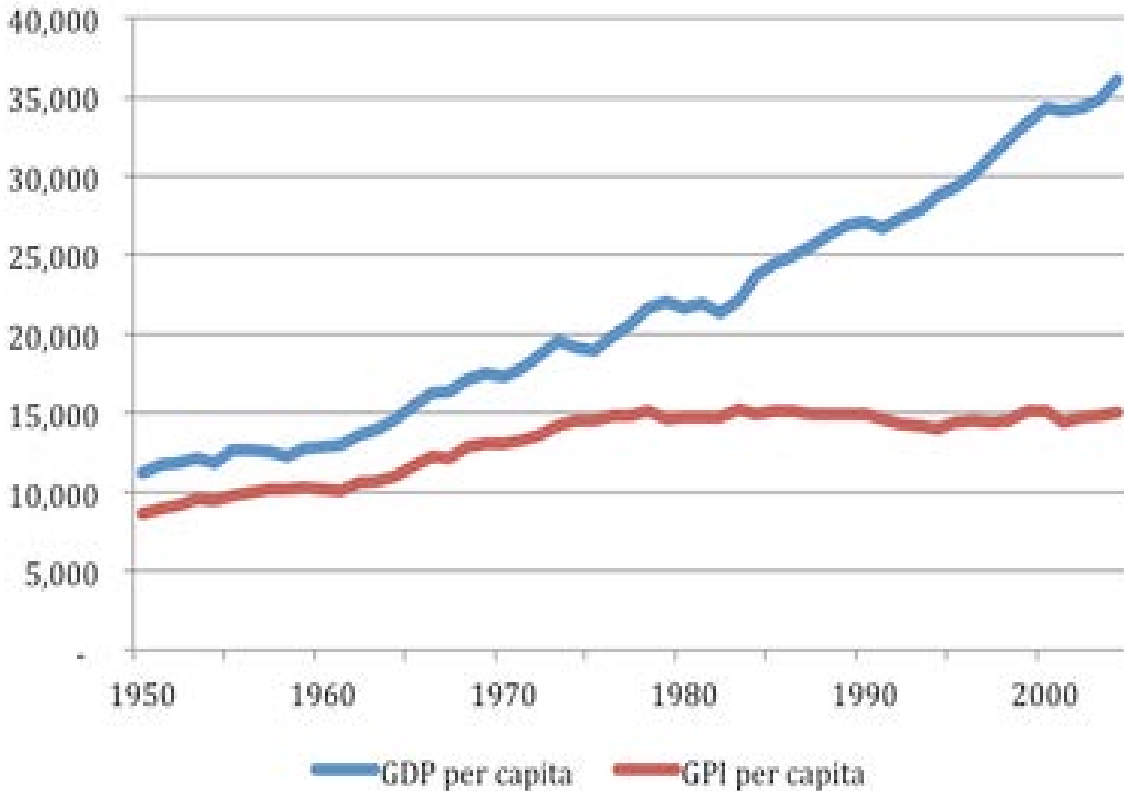➢Responsible Parties (those that can influence outcome) (Identify)

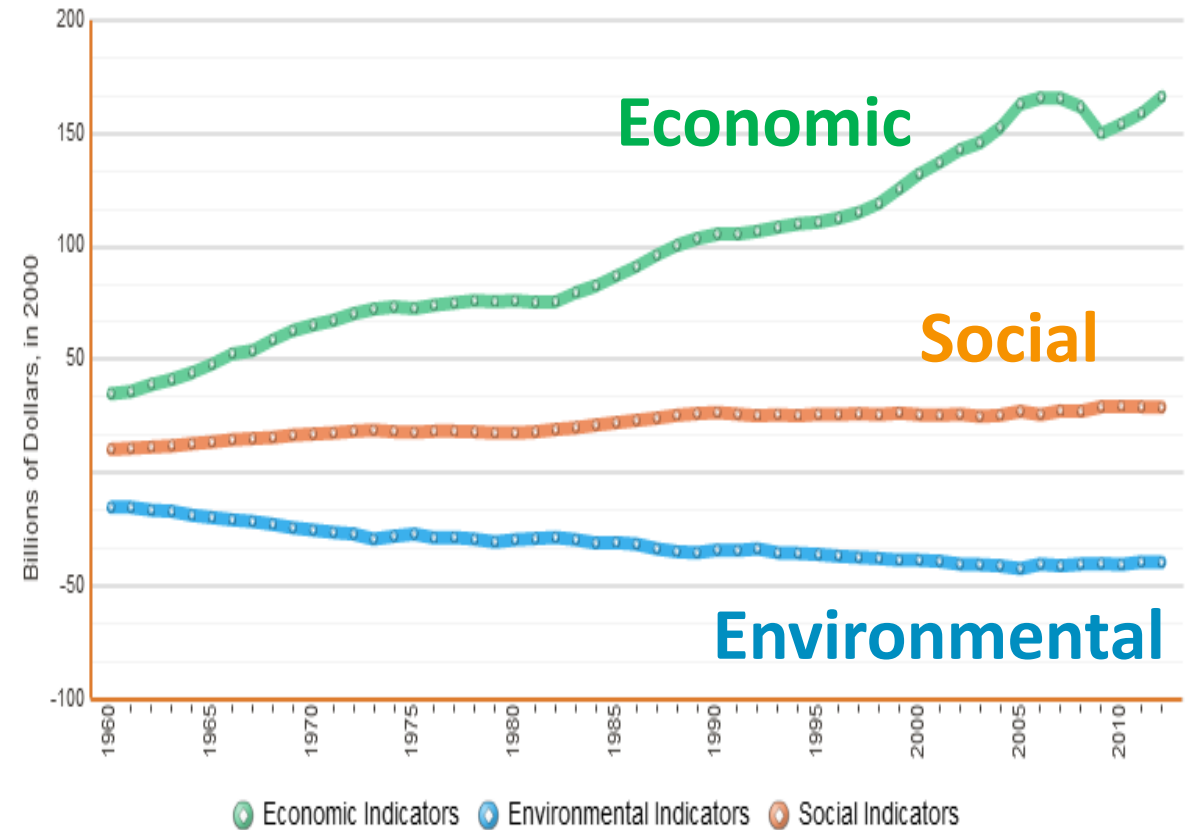# A MORE HOLISTIC VIEW OF PROSPERITY

➢Economic
➢Social
➢Environmental
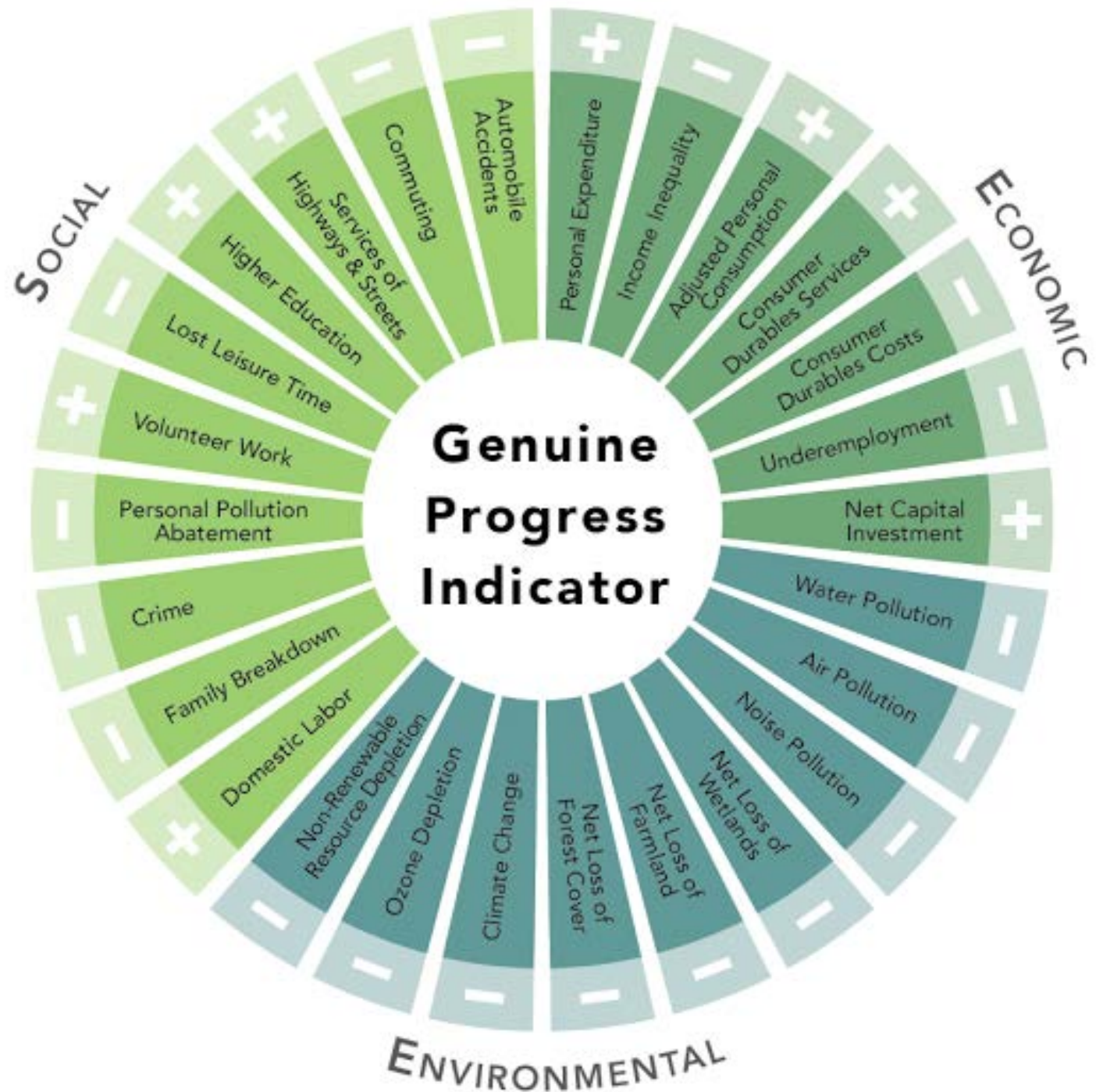
PEOPLE "FEEL" GPI

GDP vs GPI

Composition of GPI

For additional information on the Social Indicators:

https://www.ted.com/talks/michael_green_what_the_social_progress_index_can_reveal_about_your_country

ECONOMIC INDICATORS

A. Per capita income	Base value	ACS income data (so that it is consistent with other SANDAG estimates and forecasts)		SANDAG, ACS
B: Income distribution	Negative or positive	(Gini coefficient in year times 100)/ (base year [1970] Gini coefficient)	Data available for all years for all three levels.	SANDAG, ACS
C: Personal income adj. for income inequality	Adjusted base value	(Column A/column B)*100	Calculated	SANDAG
Cost of underemployment	Negative	(Total number of underemployed persons) (unprovided hours per constrained worker (Leete-Guy and Schor, 1992)) (average hourly wage rate)	No. of underemployed persons calculated using a data from BLS and Schor (1997) using a quadratic equation to est. underemployment rate from unemployment rate. Unprovided hours used data from Leete-Guy and Schor (1992). Average hourly wage: see column E	BLS
Venture capital investment	Positive or negative			PWC
Cost of living	Negative			Consumer Price Index?

Environmental Indicators

Cost of water pollution	Negative			Keith
Cost of air pollution	Negative			SANDAG Air Quality Index (Rachel)
Loss of wetlands (might be a subgroup for habitat)	Negative			SANDAG (Keith and grace)
Loss of farmland	Negative			SANDAG (Keith and grace)
Loss of habitat	Negative			SANDAG (Keith and grace)
Habitat Restored	Positive			
Brownfield Remediation				
Cost of greenhouse gas emission	Negative			SANDAG (Regional Plan)
Beach erosion	Negative			SANDAG (Sarah)
Moving from non-renewable to renewable resources	Positive			SANDAG (Allison Wood)

SOCIAL INDICATORS

Cost of family breakdown	Negative	(Cost of divorce)+ ~~(social cost of television viewing)~~	Cost of divorce: no. of divorces in VT (Census Bureau). Cost est. at US$8922/divorce plus US$13,380/child. Est. 0.89 children per divorce. Scaled VT est. by pop. for CC and BT.
Overcrowding: % of people in substandard housing and homeless			
Cost of crime	Negative	(Direct cost of crime [out-of-pocket expenditures and the value of stolen property]) +(indirect [defensive expenditures to prevent or avoid crime])	Average cost per crime estimated by dividing value of stolen property (Vermont Center for Justice Research, 2001) by no. of property crimes (FBI, 2000). This cost was multiplied by the no. of property crimes in 1950–2000
Value of higher education			Proportion of people who have higher education and who don't. Combine it with the wage differential.
Access to high frequency transit, transit stops, bike facilities, retail and receatonal activities, healthcare etc	-	-	-How to monetize?
Cost of automobile accidents	Negative	(Direct costs, including property damage and healthcare exp.)+ (indirect costs, including lost wages, pain and suffering)	No. of fatalities from automobile accidents (National Safety Council) times cost of all motor vehicle crashes on a per death basis—US$4.68 million (National Safety Council)

SOCIAL INDICATORS (CONT)

Variable to account for social justice - jobs and housing balance, Transportation and housing cost index		
Access to education and jobs in 30 minutes		
Literacy or English Proficiency		
Cost of commuting	Negative	(~~Direct costs for vehicle purchase and maintenance~~)+(cost of public trans.)+ (indirect cost for lost time)

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