

# Swiss Museums – „localising“ sustainability

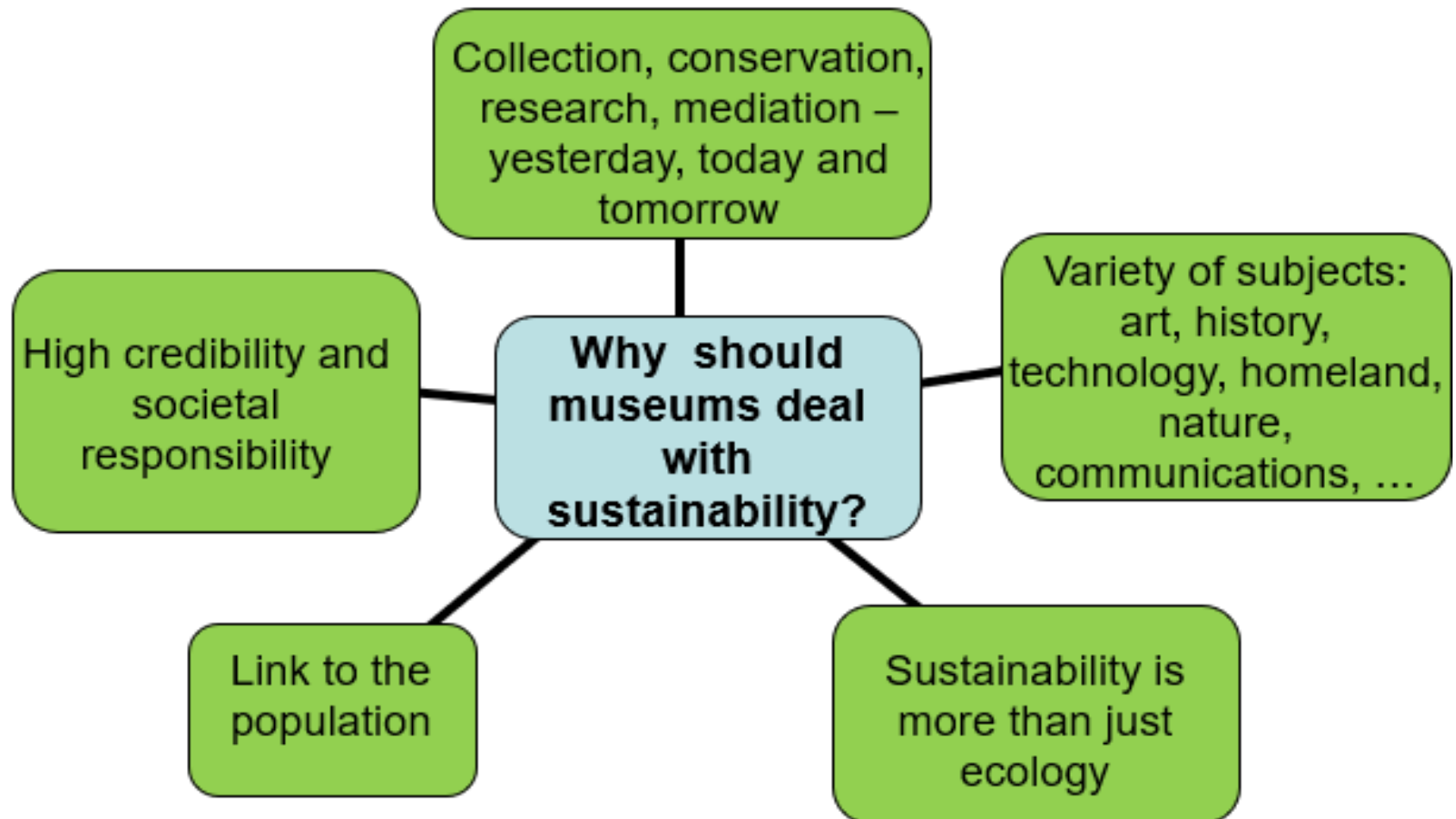


Workshop Happy Museums Schweiz, 29. November 2018

Peter Jann

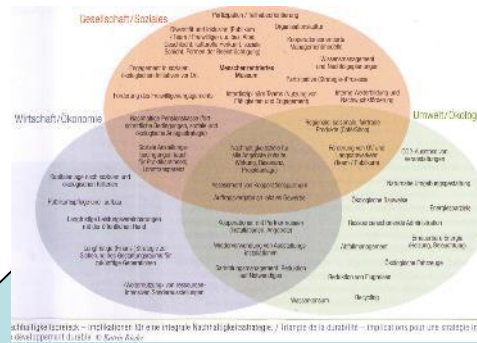
# Sustainability in Swiss Museums

Many good reasons



# Sustainability – Taking on responsibilities

Global



«Nachhaltigkeit» – einholischer für eine integrierte Nachhaltigkeitsstrategie, / Interprète de la durabilité – un concept pour une stratégie intégrée  
 developpement durable © Swiss Agency

National

BAK, ARE



NACHHALTIGE ENTWICKLUNG

**Kultur und Kreativität für die nachhaltige Entwicklung**

Gute Beispiele für die Gemeinwesen

**STIFTUNG MERCATOR SCHWEIZ**

FAIR TRADE TOWN

the happy museum

Local



# Agenda 2030

## 17 UNO Sustainable Development Goals

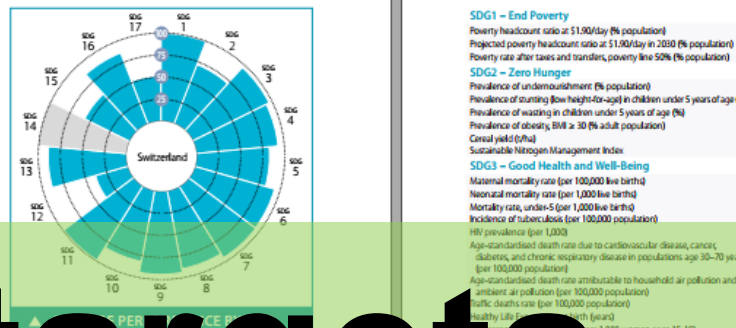


**Agenda 2030 for Sustainable Development**  
**17 goals – 169 targets– 100 to 200 indicators**

## SWITZERLAND OECD Countries

### OVERALL PERFORMANCE

Index score      Regional average score



# 169 targets

### CURRENT ASSESSMENT – SDG DASHBOARD



### SDG TRENDS



Note: The full title of Goal 2 "Zero Hunger" is "End hunger, achieve food security and improved nutrition and promote sustainable agriculture."

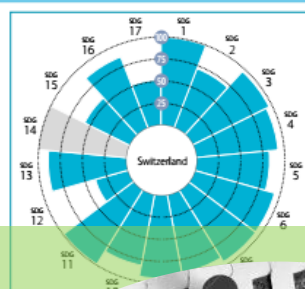
## SWITZERLAND Performance by Indicator

SDGI – End Poverty	Value	Rating	Trend	Value	Rating	Trend
Poverty headcount ratio at \$1.05/day (% population)	0.0	→		Quality of overall infrastructure (=externally undervalued)	6.6	→
Projected poverty headcount ratio at \$1.90/day in 2030 (% population)	0.0	→		7+ extensive and efficient by international standards		
Poverty rate after taxes and transfers, poverty line 50% (% population)	9.9	→		Logistics performance index: Quality of trade and transport-related infrastructure (=low to 5=high)	4.2	→
<b>SDG2 – Zero Hunger</b>				The Times Higher Education Universities Ranking, Average score of top 3 universities (0-100)	74.6	→
Prevalence of undernourishment (% population)	2.5	→		Number of scientific and technical journal articles (per 1,000 population)	21.5	→
Prevalence of stunting (low height-for-age) in children under 5 years of age (%)	2.6	→		Research and development expenditure (% GDP)	3.0	→
Prevalence of wasting in children under 5 years of age (%)	0.7	→		Research and development researchers (per 1,000 employed)	8.8	→
Prevalence of obesity, BMI > 30 (% adult population)	10.5	→		Trade patent families filed (per million population)	142.4	→
Cereal yield (t/ha)	5.1	→		Gap in internet access by income (%)	47.2	→
Sustainable Nitrogen Management Index	0.7	→		Women in science and engineering (%)	21.6	→
<b>SDG3 – Good Health and Well-Being</b>				<b>SDG10 – Reduced Inequalities</b>		
Maternal mortality rate (per 100,000 live births)	5.0	→		Gini Coefficient adjusted for top income (1-100)	34.6	↓
Neonatal mortality rate (per 1,000 live births)	2.9	→		Palma ratio	1.1	→
Mortality rate, under-5 (per 1,000 live births)	4.1	→		Elderly Poverty Rate (%)	19.4	→
Incidence of tuberculosis (per 100,000 population)	7.8	→		<b>SDG11 – Sustainable Cities and Communities</b>		
HIV prevalence (per 1,000)	0.1	→		Annual mean concentration of particulate matter of less than 2.5 microns of diameter (PM2.5) in urban areas (µg/m³)	12.9	→
Age-standardised death rate due to cardiovascular disease, cancer, diabetes, and chronic respiratory disease in populations age 30-70 years (per 100,000 population)	8.7	→		Improved water source, piped (% urban population with access)	100.0	→
Age-standardised death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	8.3	→		Satisfaction with public transport (%)	84.0	→
Traffic deaths rate (per 100,000 population)	3.6	→		Fast overburden rate (%)	6.3	→
Healthcare expenditure (per 1,000 women ages 15-10)	10.4	→		<b>SDG12 – Responsible Consumption and Production</b>		
Survival rate, under-5 (per 1,000 women ages 15-10)	100.0	→		E-waste generated (kg/capita)	36.3	→
Survival rate, under-5 (per 1,000 women ages 15-10)	94.0	→		Anthropogenic wastewater that receives treatment (%)	97.0	→
Universal health services (UHS) index (0-100)	96.2	→		Production-based SO <sub>2</sub> emissions (kg/capita)	1.7	→
Subjective well-being (per 100,000 population)	7.5	→		Net imported SO <sub>2</sub> emissions (kg/capita)	34.4	→
Subjective well-being (per 100,000 population)	1.3	→		Active nitrogen production footprint (kg/capita)	59.6	→
Subjective well-being (per 100,000 population)	21.3	→		Net imported emissions of reactive nitrogen (kg/capita)	42.4	→
Subjective well-being (per 100,000 population)	20.4	→		Non-Recycled Municipal Solid Waste (NRSW) in kg/person/day	1.8	→
<b>SDG4 – Quality Education</b>				<b>SDG13 – Climate Action</b>		
Net primary enrolment rate (%)	93.5	↓		Energy-weighted CO <sub>2</sub> emissions per capita (tCO <sub>2</sub> /capita)	4.3	↑
Mean years of schooling	13.1	→		Imported CO <sub>2</sub> emissions, technology-adjusted (tCO <sub>2</sub> /capita)	0.9	→
Literacy rate of 15-24 year olds, both sexes (%)	NA	→		Climate Change Vulnerability Monitor (best 0-1 worst)	0.0	→
Population age 25-64 with tertiary education (%)	41.2	→		CO <sub>2</sub> emissions embodied in fossil fuel exports (kg/capita)	2.1	→
PSA score (0-100)	506.3	→		Effective Carbon Rate from all non-road energy, excluding emissions from biomass (t/CO <sub>2</sub> )	29.6	→
Variation in science performance explained by students' socio-economic status (%)	15.6	→		<b>SDG14 – Life Below Water</b>		
Students performing below level 2 in science (%)	18.5	↓		Mean area that is protected in marine sites important to biodiversity (%)	NA	→
Resilient students (%)	20.1	→		Ocean Health Index Goal-Biodiversity (0-100)	NA	→
<b>SDG5 – Gender Equality</b>				Ocean Health Index Goal-Clean Waters (0-100)	NA	→
Unmet demand for contraception, estimated (% women married or in union, ages 15-49)	9.3	→		Ocean Health Index Goal-Fisheries (0-100)	NA	→
Female to male labour force participation rate (%)	98.5	→		Fish Stocks overexploited or collapsed by EEZ (%)	NA	→
Female to male mean years of schooling, population age 25+ (%)	84.8	→		Fish caught by trawling (%)	NA	→
Seats held by women in national parliaments (%)	32.5	→		<b>SDG15 – Life on Land</b>		
Gender wage gap (total, % male median wage)	16.9	→		Mean area that is protected in terrestrial sites important to biodiversity (%)	35.2	→
<b>SDG6 – Clean Water and Sanitation</b>				Mean area that is protected in freshwater sites important to biodiversity (%)	59.9	→
High-income countries: population using safely managed water services (%)	95.5	↑		Red list index of species survival (0-1)	1.0	→
Other countries: population using at least basic drinking water services (%)	NA	→		Annual change in forest area (%)	1.8	→
High-income countries: population using safely managed sanitation services (%)	99.0	→		Imported biodiversity threats (threats per million population)	26.1	→
Other countries: population using at least basic sanitation services (%)	NA	→		<b>SDG16 – Peace, Justice and Strong Institutions</b>		
Freshwater withdrawal as % total renewable water resources	7.4	→		Homicides (per 100,000 population)	0.7	→
Imported groundwater depletion (m³/year/capita)	8.4	→		Prison population (per 100,000 population)	78.3	→
<b>SDG7 – Affordable and Clean Energy</b>				Population who feel safe walking alone at night in city or area where they live (%)	85.0	↑
Access to electricity (% population)	100.0	→		Government Efficiency (1-7)	5.5	→
Access to clean fuels & technology for cooking (% population)	100.0	→		Property Rights (1-7)	6.6	→
CO <sub>2</sub> emissions from fuel combustion / electricity output (MCO <sub>2</sub> /TWh)	0.6	→		Birth registrations with civil authority, children under 5 years of age (%)	100.0	→
Share of renewable energy in total final energy consumption (%)	25.3	→		Corruption Perception Index (0-100)	85.0	→
<b>SDG8 – Decent Work and Economic Growth</b>				Children 5-14 years old involved in child labour (%)	0.0	→
Adjusted Growth (%)	-0.2	→		Transfers of major conventional weapons (tonnes)	3.4	→
Slavery score (0-100)	100.0	→		(constant 1990 US\$ million per 100,000 population)		
Adults (15 years+) with an account at a bank or other financial institution or with a mobile-money-service provider (%)	98.4	→		<b>SDG17 – Partnerships for the Goals</b>		
Employment-to-Population ratio (%)	79.8	→		Government Health and Education spending (% GDP)	16.8	→
Youth not in employment, education or training (NEET) (%)	8.7	↓		High-income and all OECD DAC countries: international concessional public finance, including official development assistance (% GNI)	0.5	↑
<b>SDG9 – Industry, Innovation and Infrastructure</b>				Other countries: tax revenue (% GDP)	NA	→
Proportion of the population using the internet (%)	89.1	→		Tax Haven Score (best 0-5 worst)	3.0	→
Mobile broadband subscriptions (per 100 inhabitants)	100.6	↑		Financial Sector Score (best 0-100 worst)	76.5	→

## SWITZERLAND OECD Countries

### OVERALL PERFORMANCE

Index score      Regional average score



# 169

### CURRENT ASSESSMENT - SDG DASH



### SDG TRENDS



Note: The full title of Goal 2 "Zero Hunger" is "End hunger, achieve food security and improved nutrition and promote sustainable agriculture."

## SWITZERLAND Performance by Indicator

SDGI - End Poverty	Value	Rating	Indicator	Value	Rating	Indicator
Poverty headcount ratio at \$1.05/day (% population)	0.0	→	Quality of overall infrastructure (=externally undeveloped; 7=extensive and efficient by international standards)	6.6	→	
Projected poverty headcount ratio at \$1.90/day in 2030 (% population)	0.0	→	Logistics performance index: Quality of trade and transport-related infrastructure (=low to 5=high)	4.2	→	
Poverty rate after taxes and transfers; poverty line 50% (population)	9.9	→	The Times Higher Education Universities Ranking, Average score of top 3 universities (0-100)	74.6	→	
<b>SDG2 - Zero Hunger</b>			Number of scientific and technical journal articles (per 1,000 population)	2.5	→	
Prevalence of undernourishment (% population)	2.5	→	Research and development expenditure (% GDP)	3.0	→	
Prevalence of stunting (low height-for-age) in children under 5 years of age (%)	0.7	→	Research and development researchers (per 1,000 employed)	8.8	→	
Prevalence of wasting in children under 5 years of age (%)	10.5	→	Trade patent families filed (per million population)	142.4	→	
Cereal yield (t/ha)	5.1	→	Gap in internet access by income (%)	47.2	→	
Sustainable Nitrogen Management Index	0.7	→	Women in science and engineering (%)	21.6	→	
<b>SDG3 - Good Health and Well-Being</b>			<b>SDG10 - Reduced Inequalities</b>			
Maternal mortality rate (per 100,000 live births)	5.0	→	Gini Coefficient adjusted for top income (1-100)	34.6	↓	
Neonatal mortality rate (per 1,000 live births)	2.9	→	Palma ratio	1.1	→	
Mortality rate, under-5 (per 1,000 live births)	4.1	→	Elderly Poverty Rate (%)	19.4	→	
Incidence of tuberculosis (per 100,000 population)	7.8	→	<b>SDG11 - Sustainable Cities and Communities</b>			
HIV prevalence (per 1,000)	0.1	→	Annual mean concentration of particulate matter of less than 2.5 microns of diameter (PM2.5) in urban areas (µg/m³)	12.9	→	
Age-standardized death rate due to cardiovascular disease, cancer, diabetes, and chronic respiratory disease in populations age 30-70 years (per 100,000 population)	8.7	→	Improved water source, piped (% urban population with access)	100.0	→	
Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	8.3	→	Satisfaction with public transport (%)	84.0	→	
Infant deaths rate (per 1,000 live births)	3.6	→	Fast overburden rate (%)	6.3	→	
Infant mortality rate (per 1,000 women ages 15-17)	10.4	→	<b>SDG12 - Responsible Consumption and Production</b>			
Healthcare workers per 1,000 population	100.0	→	E-waste generated (kg/capita)	26.3	→	
Percentage of 2 WHO-recommended vaccines (%)	94.0	→	Anthropogenic wastewater that receives treatment (%)	97.0	→	
Gender inequality index (0-100)	96.2	→	Production-based SO2 emissions (kg/capita)	1.7	→	
Gender score, 0-100	7.5	→	Net imported SO2 emissions (kg/capita)	34.4	→	
Gender score, 0-100 (young regions (years))	1.3	→	Net imported nitrogen production footprint (kg/capita)	54.6	→	
Gender score, 0-100 (older regions (years))	21.3	→	Net imported emissions of reactive nitrogen (kg/capita)	43.4	→	
Gender score, 0-100 (total)	20.4	→	Non-Recycled Municipal Solid Waste (NRSW) in kg/person/day)	1.8	→	
<b>SDG13 - Climate Action</b>			<b>SDG13 - Climate Action</b>			
Energy-related CO2 emissions per capita (tCO2/capita)	93.5	↓	Energy-related CO2 emissions per capita (tCO2/capita)	4.3	→	
Impacted CO2 emissions, technology-adjusted (tCO2/capita)	13.1	→	Impacted CO2 emissions, technology-adjusted (tCO2/capita)	0.9	→	
Climate Change Vulnerability Monitor (best 0-1 worst)	NA	→	Climate Change Vulnerability Monitor (best 0-1 worst)	0.1	→	
CO2 emissions embodied in total fuel exports (kg/capita)	41.2	→	Effective Carbon Rate from all non-wood energy, excluding emissions from biomass (tCO2)	23.6	→	
Effective Carbon Rate from all non-wood energy, excluding emissions from biomass (tCO2)	506.3	→	<b>SDG14 - Life Below Water</b>			
<b>SDG14 - Life Below Water</b>			Mean area that is protected in marine sites important to biodiversity (%)	NA	→	
Ocean Health Index Goal-Biodiversity (0-100)	18.5	↓	Ocean Health Index Goal-Clean Waters (0-100)	NA	→	
Ocean Health Index Goal-Clean Waters (0-100)	20.1	→	Ocean Health Index Goal-Fisheries (0-100)	NA	→	
Ocean Health Index Goal-Fisheries (0-100)	9.3	→	Fish Stocks overexploited or collapsed by EEZ (%)	NA	→	
Fish Stocks overexploited or collapsed by EEZ (%)	9.3	→	Fish caught by trawling (%)	NA	→	
Fish caught by trawling (%)	98.5	→	<b>SDG15 - Life on Land</b>			
<b>SDG15 - Life on Land</b>			Mean area that is protected in terrestrial sites important to biodiversity (%)	35.2	→	
Mean area that is protected in terrestrial sites important to biodiversity (%)	84.8	→	Mean area that is protected in freshwater sites important to biodiversity (%)	59.9	→	
Mean area that is protected in freshwater sites important to biodiversity (%)	32.5	→	Red list index of species survival (0-1)	1.0	→	
Red list index of species survival (0-1)	16.9	→	Annual change in forest area (%)	1.8	→	
Annual change in forest area (%)	95.5	→	Improved biodiversity threats (threats per million population)	26.1	→	
Improved biodiversity threats (threats per million population)	NA	→	<b>SDG16 - Peace, Justice and Strong Institutions</b>			
<b>SDG16 - Peace, Justice and Strong Institutions</b>			Homicides (per 100,000 population)	0.7	→	
Homicides (per 100,000 population)	91.0	→	Prison population (per 100,000 population)	78.3	→	
Prison population (per 100,000 population)	NA	→	Population who feel safe walking alone at night in city or area where they live (%)	85.0	→	
Population who feel safe walking alone at night in city or area where they live (%)	7.4	→	Government Efficiency (1-7)	5.5	→	
Government Efficiency (1-7)	8.4	→	Property Rights (1-7)	6.6	→	
Property Rights (1-7)	<b>Affordable and Clean Energy</b>		Birth registrations with civil authority, children under 5 years of age (%)	100.0	→	
<b>Affordable and Clean Energy</b>			Competition Perception Index (0-100)	85.0	→	
Access to electricity (% population)	100.0	→	Children 5-14 years old involved in child labour (%)	0.0	→	
Access to electricity (% population)	0.6	→	Transfers of major conventional weapons (tonnes) (constant 1990 US\$ million per 100,000 population)	3.4	→	
CO2 emissions from fuel combustion / electricity output (tCO2/TWh)	0.6	→	<b>SDG17 - Partnerships for the Goals</b>			
Share of renewable energy in total final energy consumption (%)	25.3	→	Government Health and Education spending (% GDP)	16.8	→	
Share of renewable energy in total final energy consumption (%)	0.6	→	High-Income and all OECD DAC countries: International concessional public finance, including official development assistance (% GNI)	0.5	→	
<b>SDG8 - Decent Work and Economic Growth</b>			Other countries: Tax revenue (% GDP)	NA	→	
Adjusted Growth (%)	-0.2	→	Tax Haven Score (best 0-5 worst)	3.0	→	
Adjusted Growth (%)	100.0	→	Financial Sector Score (best 0-100 worst)	76.5	→	
Adults (15 years+) with an account at a bank or other financial institution or with a mobile-money-service provider (%)	96.4	→				
Adults (15 years+) with an account at a bank or other financial institution or with a mobile-money-service provider (%)	79.8	→				
Employment-to-Population ratio (%)	8.7	↓				
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Youth not in employment, education or training (NEET) (%)	8.7	↓				
Youth not in employment, education or training (NEET) (%)	8.7	↓				
<b>SDG9 - Industry, Innovation and Infrastructure</b>						
Proportion of the population using the internet (%)	89.1	→				
Proportion of the population using the internet (%)	100.6	→				
Mobile broadband subscriptions (per 100 inhabitants)	100.6	→				



## Where do I start?

- Make a choice: select those issues where you have influence.
- Make it local: Define what success on your chosen SDG looks like in your community.
- Collaborate: Find partners that can help you achieve your local goal.
- Focus on impact, not commitments. The SDGs are a funding and PR opportunity for museums.
- Spread the message.

(according to Jasper Visser, <https://themuseumofthefuture.com/author/jaspervisser/>, 19.9.2018)

# Energy



«Aarau lives 2000 Watt»

## How is culture relevant?

- By involving creative voices in the design of educational and awareness-raising activities
- By fostering an understanding of the cultural factors that underpin energy production and consumption
- Organisational ecology

Based on: Draft Culture in the Sustainable Development Goals: A Guide for Local Action, Agenda 21 for Culture & Committee on Culture of the world association of United Cities and Local Governments



# Waterconsumption & energy



**Epilog**

**Botschaften an die Zukunft**

Der letzte Ausstellungsraum bietet Besucherinnen und Besuchern Gelegenheit zur Reflexion über die Wasser-Zukunft. Sechs Fragen regen an, Erfahrungen, Wünsche, Ängste und Hoffnungen an die Nachgeborenen zu formulieren. Die Botschaften werden in eine Boje gelegt, die das Alpine Museum auf dem «Lago della Piazza» im Gotthardgebiet auswasser wird. Im Jahr 2051 soll der Inhalt der nächsten Generation übergeben.

**Alpine Museum «Our Water»**

## How is culture relevant?

- By recognizing traditional knowledge and practices that ensure an appropriate, sustainable use of water-related ecosystems.
- By fostering an understanding of the cultural factors that underpin energy production and consumption.

Based on: Draft Culture in the Sustainable Development Goals: A Guide for Local Action, Agenda 21 for Culture & Committee on Culture of the world association of United Cities and Local Governments

# Consumption & sustainable cities



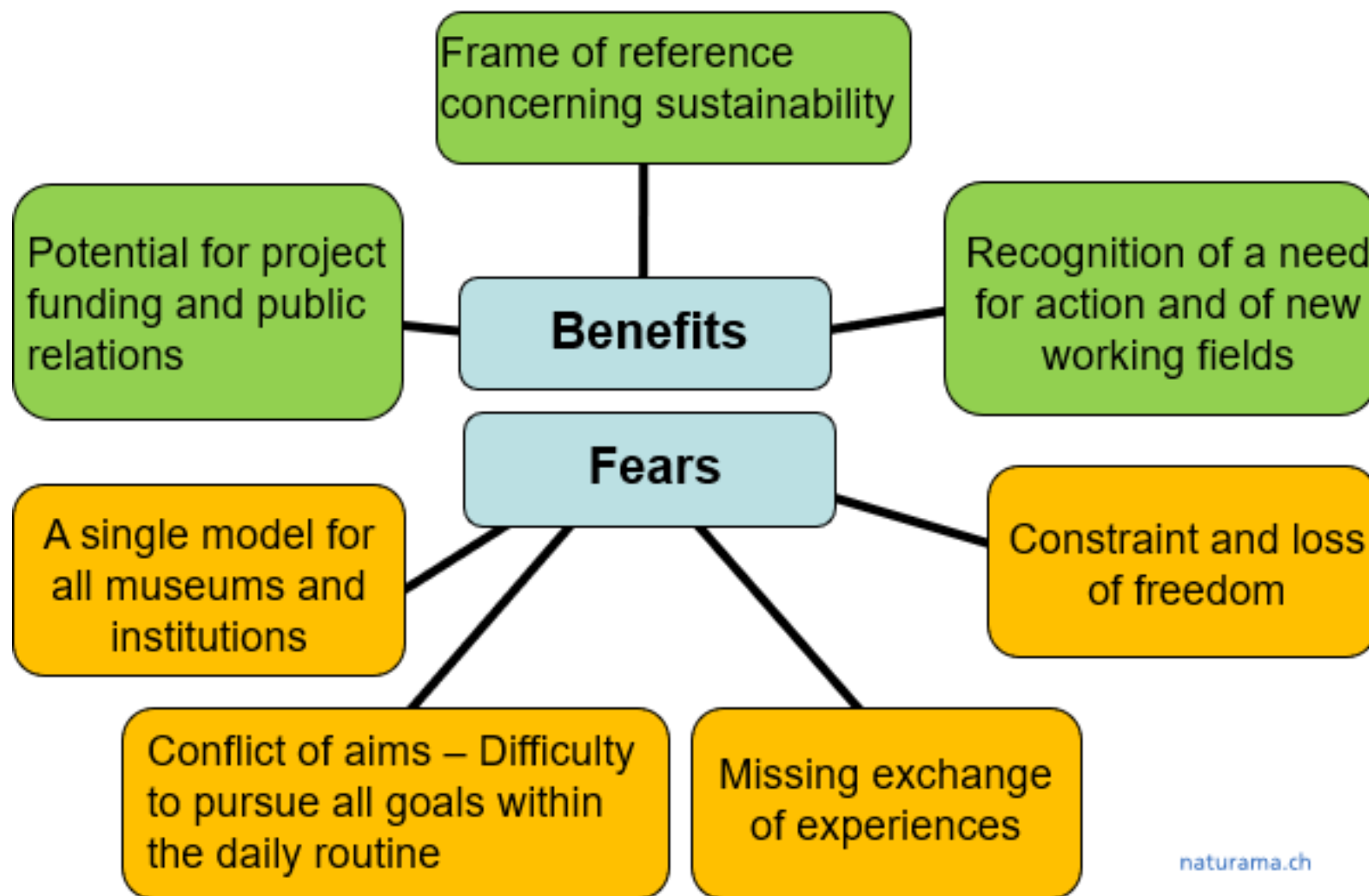
«autumnal market Aarau»

## How is culture relevant?

- By fostering an appreciation of local, traditional products
- By adopting measures to protect cultural heritage and explore its role in sustainable local development.
- By ensuring that green and public spaces are accessible and allow for the development of cultural activities

Based on: Draft Culture in the Sustainable Development Goals: A Guide for Local Action, Agenda 21 for Culture & Committee on Culture of the world association of United Cities and Local Governments

# Conclusions



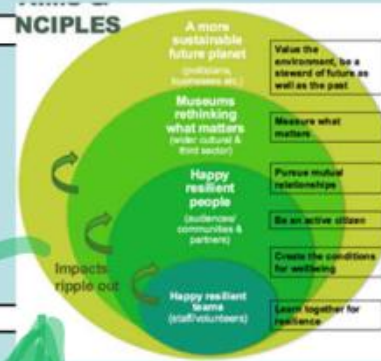
# SDGs and ‚Happy Museum‘

Global



National

the happy museum



Lokal

