

Swiss Cleantech Strengths - International Building Standard

Zurich, 26 November 2010



{ FOUNDATION
FOR GLOBAL
SUSTAINABILITY
FFGS.ORG

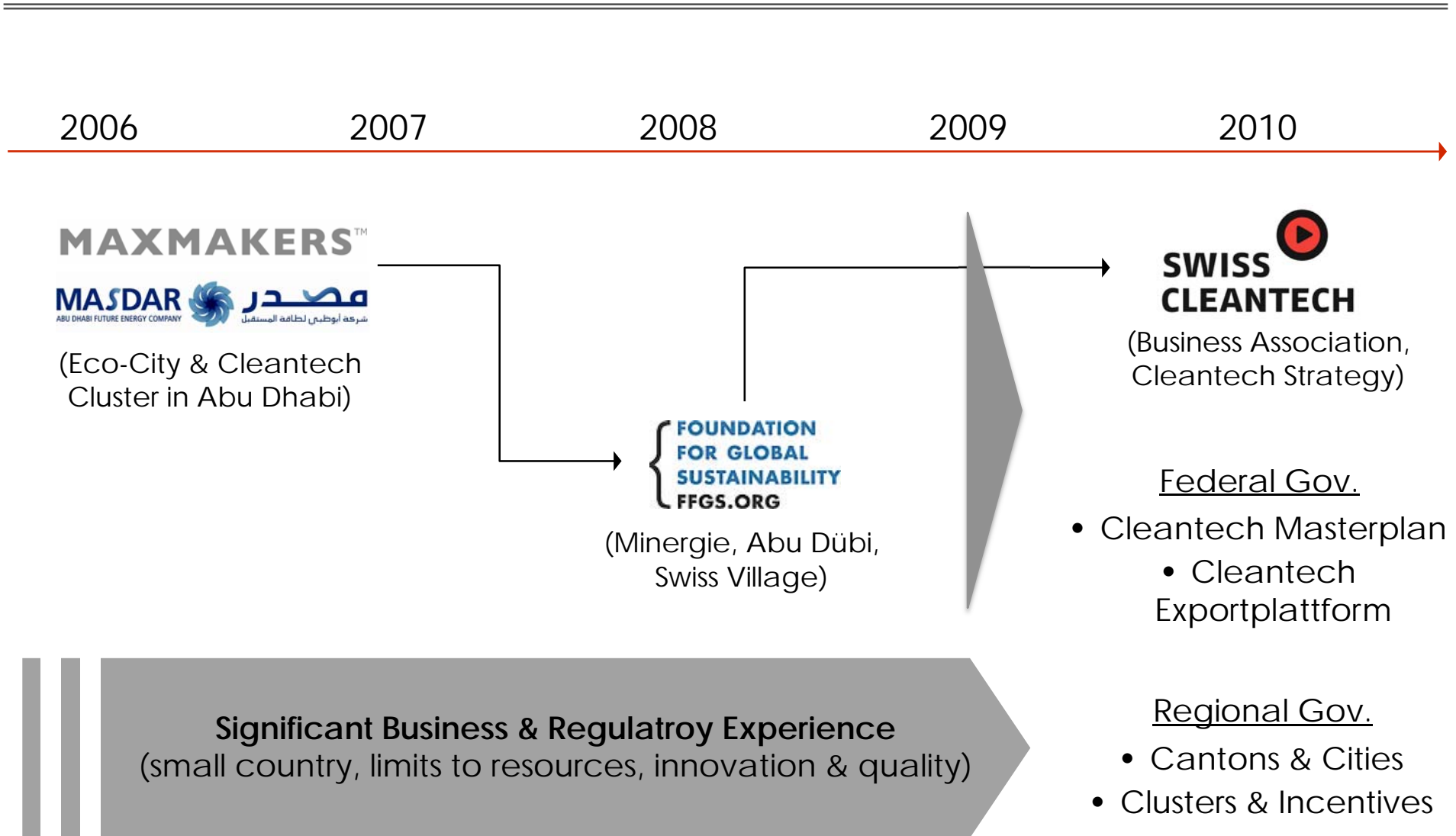
MINERGIE®

Monterosa Mountain Hut (2'883m/9'500ft, Minergie Certified)

- Why sustainable building
- Why Switzerland
- What is Minergie
- 'Minergie International', & in Turkey

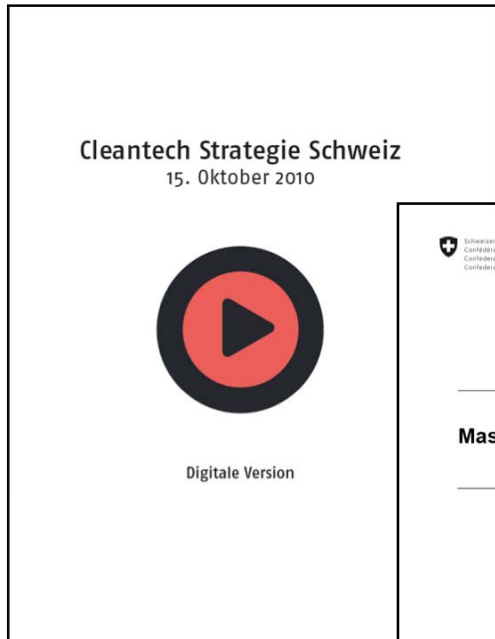


Cleantech: From Abu Dhabi to Switzerland

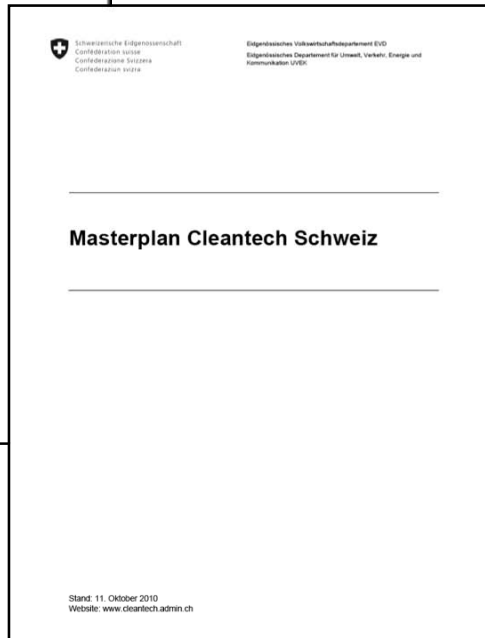


Update

Cleantech Strategy & Masterplan: Leadership Position (incl. Standards)



By swisscleantech,
published
15/10/2010



By 4 Gov.. Departments
(BBT, SECO, BAFU & BFE),
announced 19/10/2010,
published 04/11/2010

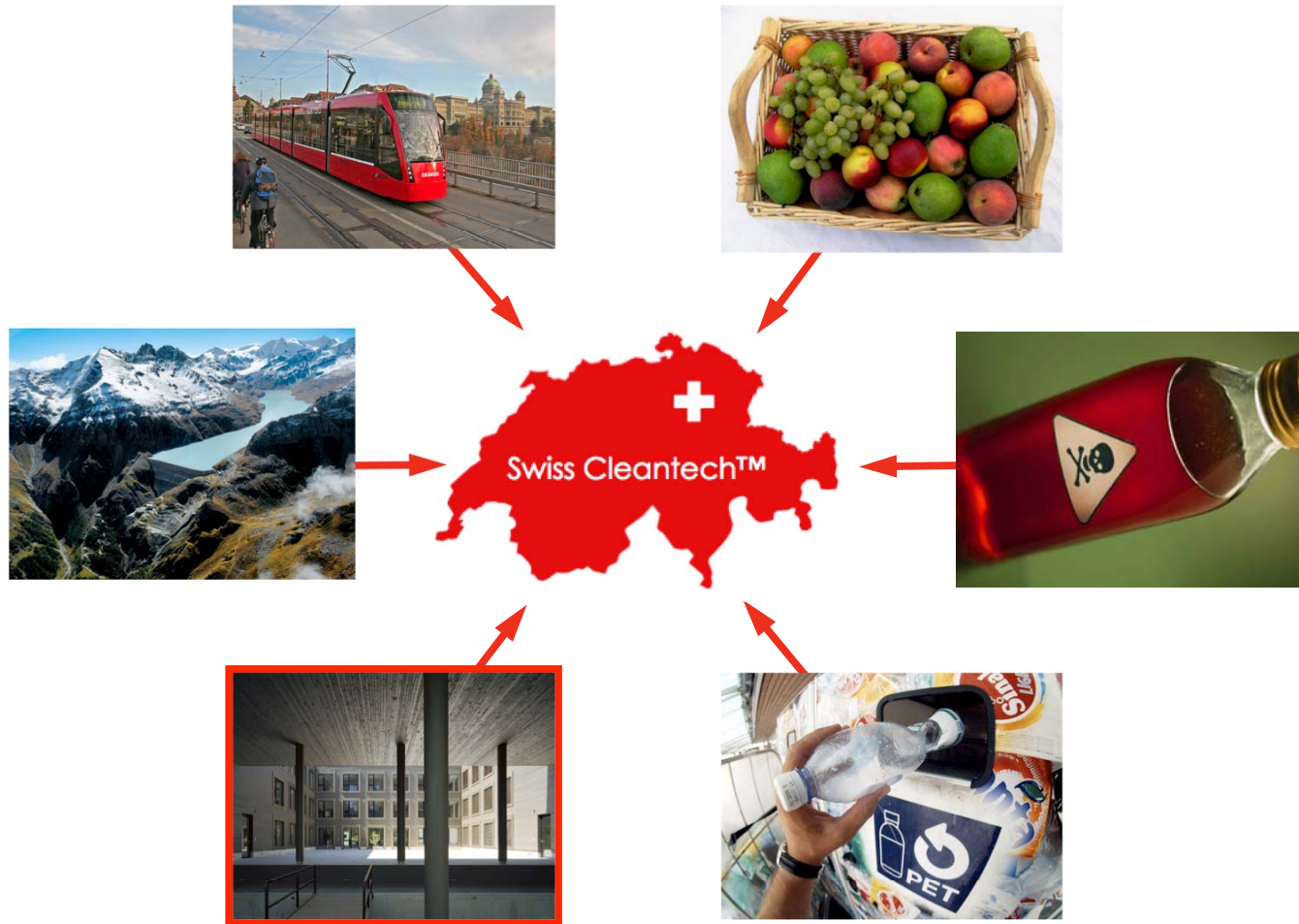
Gov. Press
Conference
(President
Leuthard & FC
Leuenberger)
19/10/2010, with
reference to
swisscleantech's
Strategy



© Keystone,
19/10/2010

Switzerland (Competitiveness, Innovation, Branding, AND MORE)

Swiss Cleantech Strength, e.g. Greenhouse Gas Efficiency



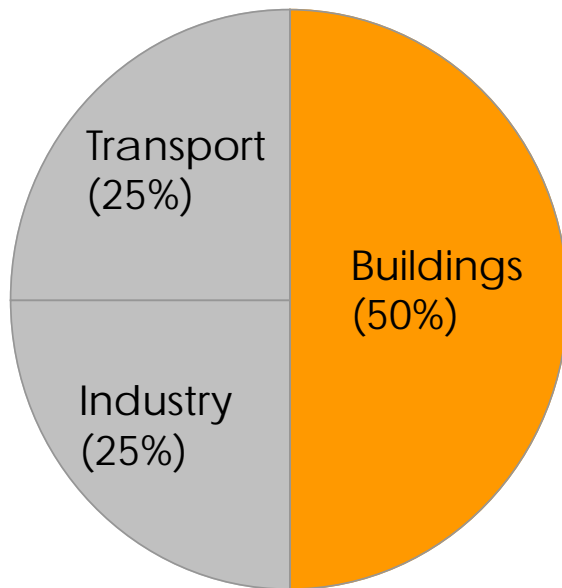
Environmental Performance Index, 2010

Rank	Country	Score
1	Iceland	93.5
2	Switzerland	89.1
3	Costa Rica	86.4
4	Sweden	86.0
5	Norway	81.1
6	Mauritius	80.6
7	France	78.2
8	Austria	78.1
9	Cuba	78.1
10	Colombia	76.8
11	Malta	76.3
12	Finland	74.7
13	Slovakia	74.5
14	United Kingdom	74.2
15	New Zealand	73.4

Source: Environmental Performance Index 2010, Yale University, Center for Environmental Law & Policy (Top 15)

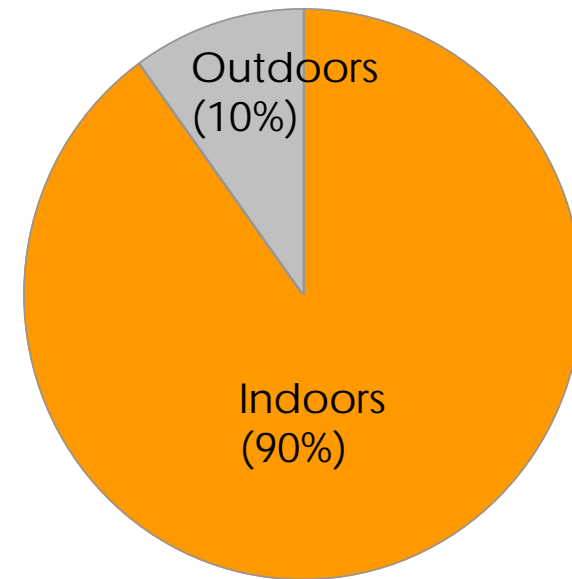
Building & Urban Planning – Key for Sustainability/Cleantech

World Energy/Resource Consumption
(Avg)



AND

Time Spent, Urban Population
(Avg)



...Megatrends, Infrastructure Lock-in,
New & Refurbished

...Health & Efficiency,
Commercial Significance

'Sustainable Building P&L'

Total/Lifecycle
Performance:

Expenditure

- Investment, Finance (≈20%)
- Operations & Maintenance
- Terminal Costs, Liabilities

Income

- + Sales/Rental Success/Occ.
- + Sales/Rental Price-Level
- + Revenue Years, Exit Value

Impact of
Sustainable
Strategy:

- Higher construction costs (0-20%, design is key)
- Lower energy & utility costs, other operating costs (e.g. insurance)
- Land/finance deals, grants
- Lower clean-up costs

- Better marketing (PR, differentiation)
- Higher sales/rental income (value: comfort/efficiency, occupancy, moral margin)
- Longer building life (years of revenue, higher exit value)

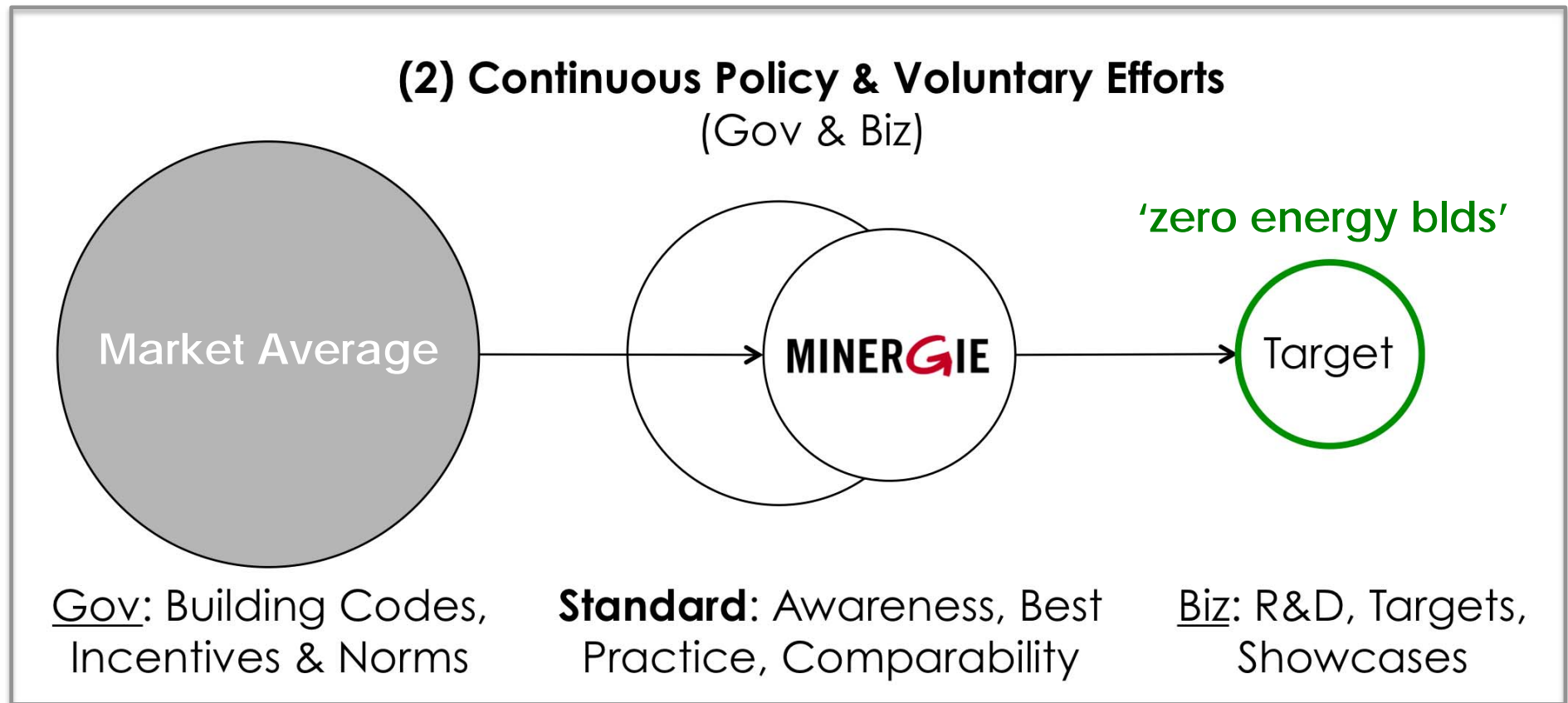
>> Drivers: Quality, Time Horizons (Lifecycle), Regulatory Framework (Energy, etc)

Key Marketing Message & Local Framework

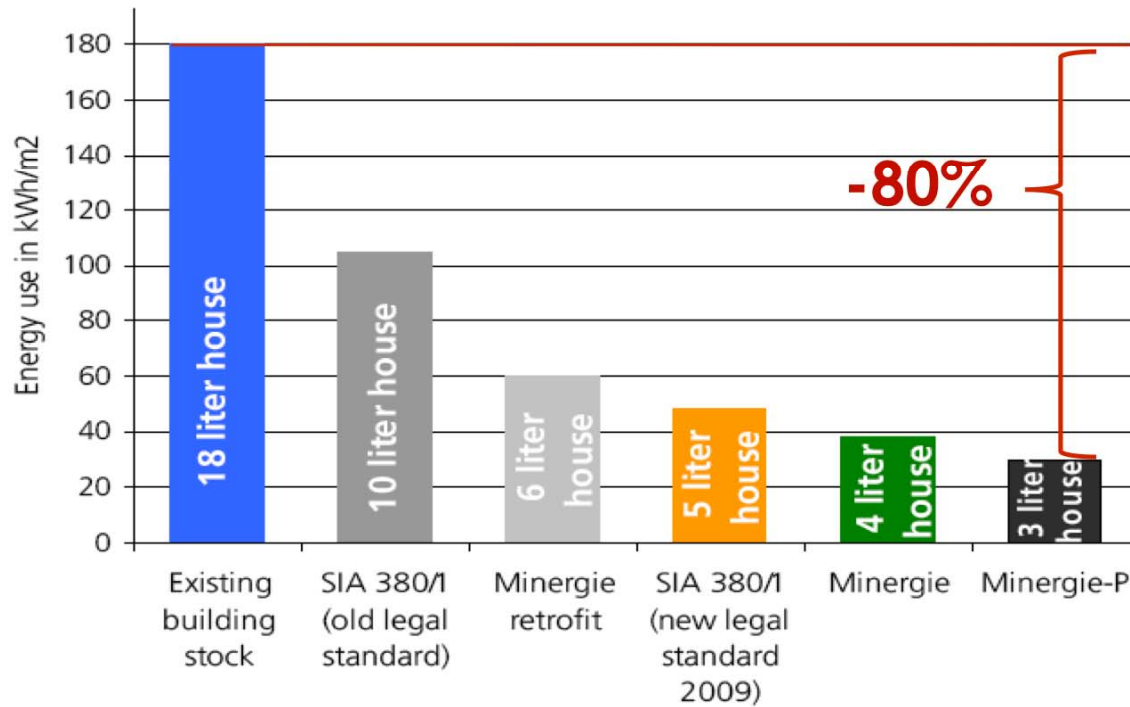


Regulatory Framework & Continuous other Efforts – incl. Standards

(1) Regulatory Framework
(education, grid infrastructure, tax, energy price, etc)



Swiss Minergie Shows What is Possible Today



MINERGIE®

MINERGIE-P®

MINERGIE-P-ECO®

+ 'Minergie A'

(Zero Energy)

+ Energy Cities

+ SIA, 2000 Watt/
1t CO₂-Society

Swiss Sustainable Building Standard & Label, KPIs

Swiss MINERGIE™

1. Swiss voluntary sustainable building standard
2. Different building types, new & renovated
3. NFP association, anchored in the **regulatory & corporate** world
4. Performance based, energy & comfort...a must
5. 3 Certification types, highly developed yet open regarding designs

Key Performance Indicators (KPIs)

1. Value: Pick-up owners/developers/investors (CHF50bn+ building stock)
2. Strong Driver: Comfort & efficiency of occupants (higher rents/sales)
3. Track: Local added value, energy savings (less fossils, trade balance, cheapest CO2 reduction measure)
4. Adoption: World's highest market penetration (25% of new, +19'000 certifications, leading biz/quality)
5. Plus: Reduction in other resources, emissions/toxins, health/liveability

Minergie in the International Context

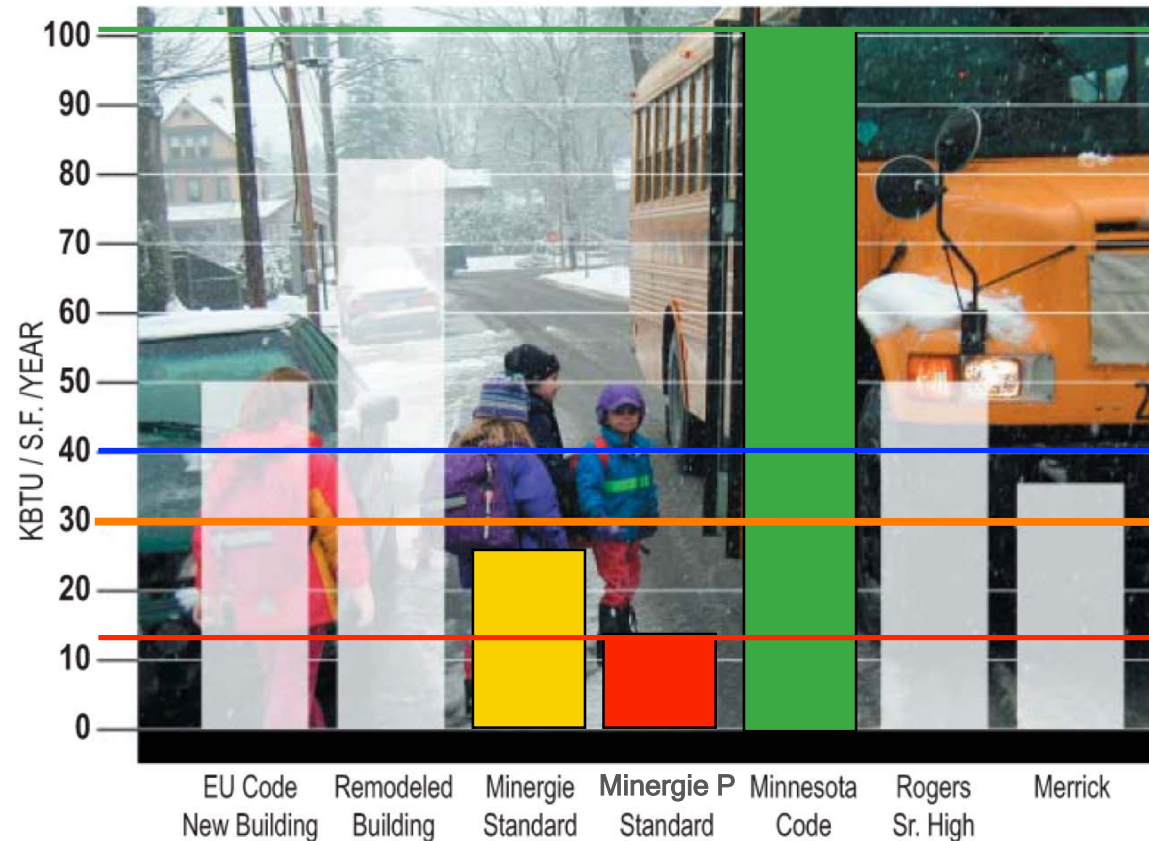
Swiss/US Building Energy Efficiency, Performance Comparison

Today 100%
 US/MN Energy Code
 315 kWh/m2a

-60%
 LEED Platinum
 190 kWh/m2a

-70%
 Switzerland
 Mandatory Code

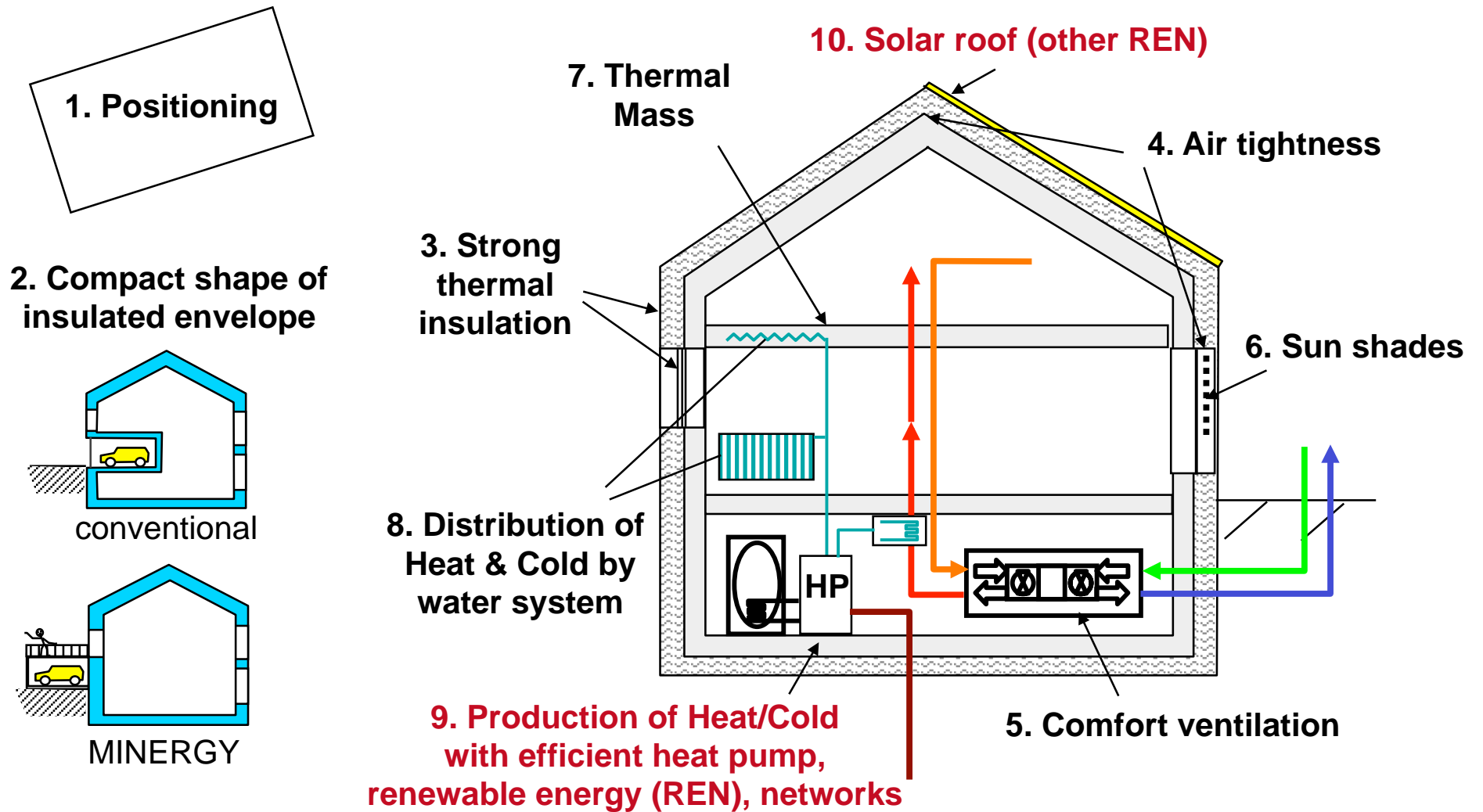
-85%
 Minergie-P Standard
 45 kWh/m2a



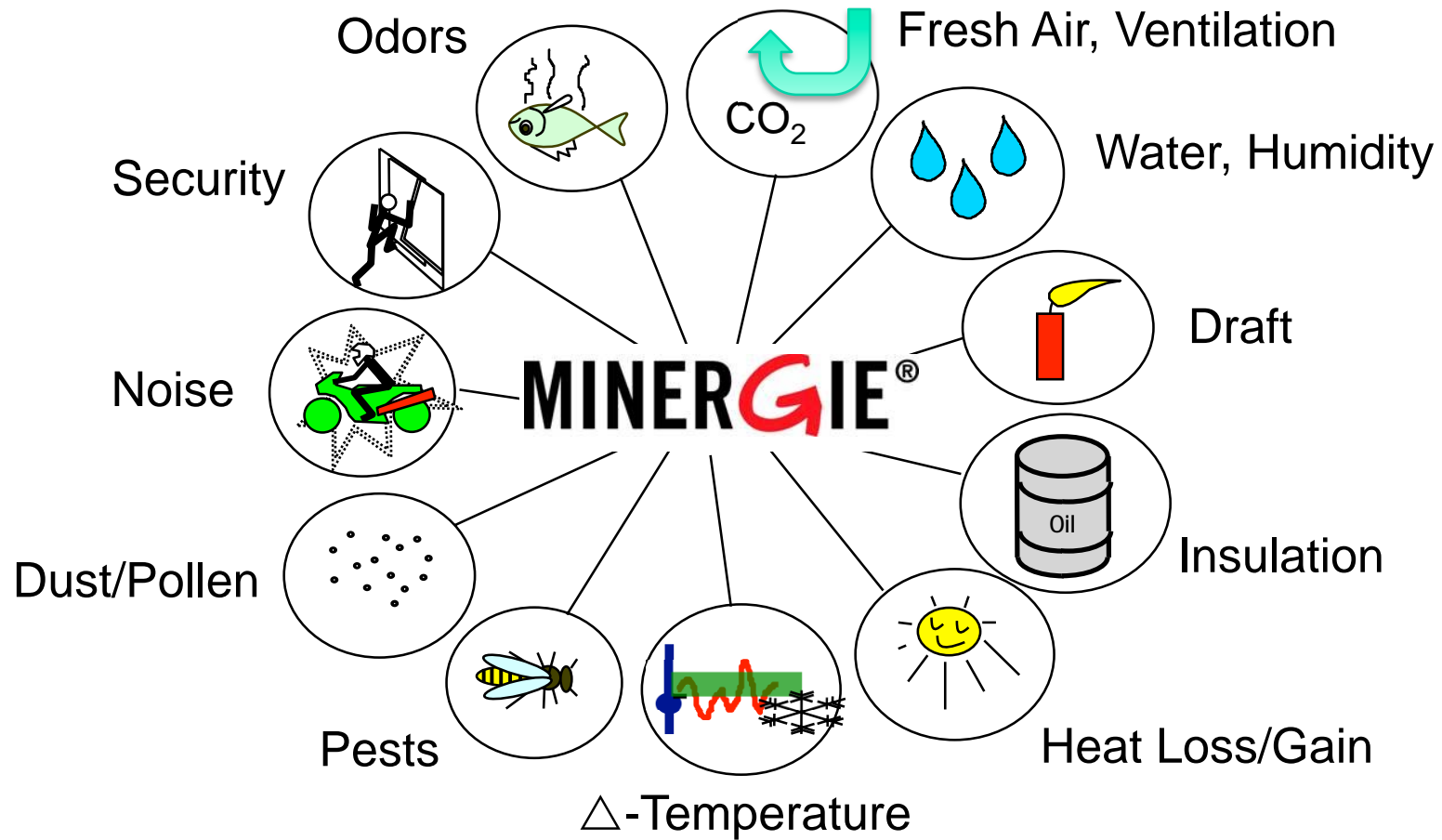
*Source: INTEP
 Example,
 State of Minnesota,
 Educational Buildings*

Minergie Approach

The 10 Key Design & Technology Measures



Comfort, Efficiency & Resources Advantages



Minergie
Advantage Example, Noise - Comfort



1 plane, window closed = 30 dBA



**1 plane, window tilted = 45 dBA
(= 32 planes, window closed)**

Minergie Advantage Example, Noise - Economics



Minergie

Advantage Example, Multiple Building Types



Wide Evidence of Success – Awareness, Best Practice, Finance



4 1/2 Zimmer Minergie-Eigentumswohnungen MFH A "Oberwilerfeld"

Adresse	Erlenweg 58 4852 Rothrist
Kanton	Aargau
ImmoScout24-Code	1237261
Zimmer	4.5
m ²	139
Verfügbarkeit	ab sofort
Kaufpreis	CHF 478'000

Neue Wohnüberbauung Oberwilerfeld in Rothrist.



SBB CFF FFS

Minergie für unterwegs: Zug fahren.

Mit einem energieeffizienten Haus leisten Sie einen wichtigen Beitrag zum Klimaschutz. Diesen Beitrag können Sie ganz einfach steigern: indem Sie Zug fahren. Wie klimafreundlich das ist, erfahren Sie vom Ecopassenger unter www.sbb.ch/umwelt.
Übrigens: Reisen Sie mit öffentlichen Verkehrsmitteln zu den 5. Internationalen Tagen «Minergie-P/Passivhaus». Infos zu geöffneten Häusern und Standorten finden Sie unter www.minergie.ch.

Innovatives Bauen unterstützen wir mit innovativen Zinsen.

Minerriegehypothek bis zu 0,75%* Zinsvergünstigung.

* Gültig für Minergie-P-Hypothek bis CHF 250 000.– und einer Laufzeit von maximal 5 Jahren.

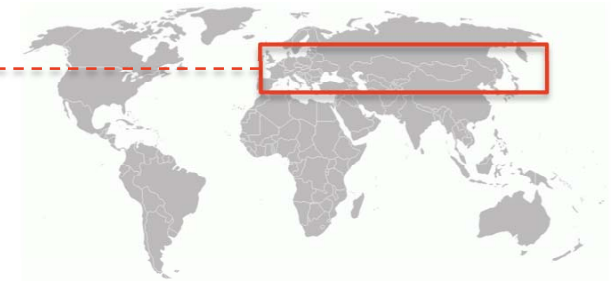
Eine unabhängige Bank
bank coop

International Activities & Interest To Date

L License (& Certifications, Research)

C Certifications (& Research)

R Research



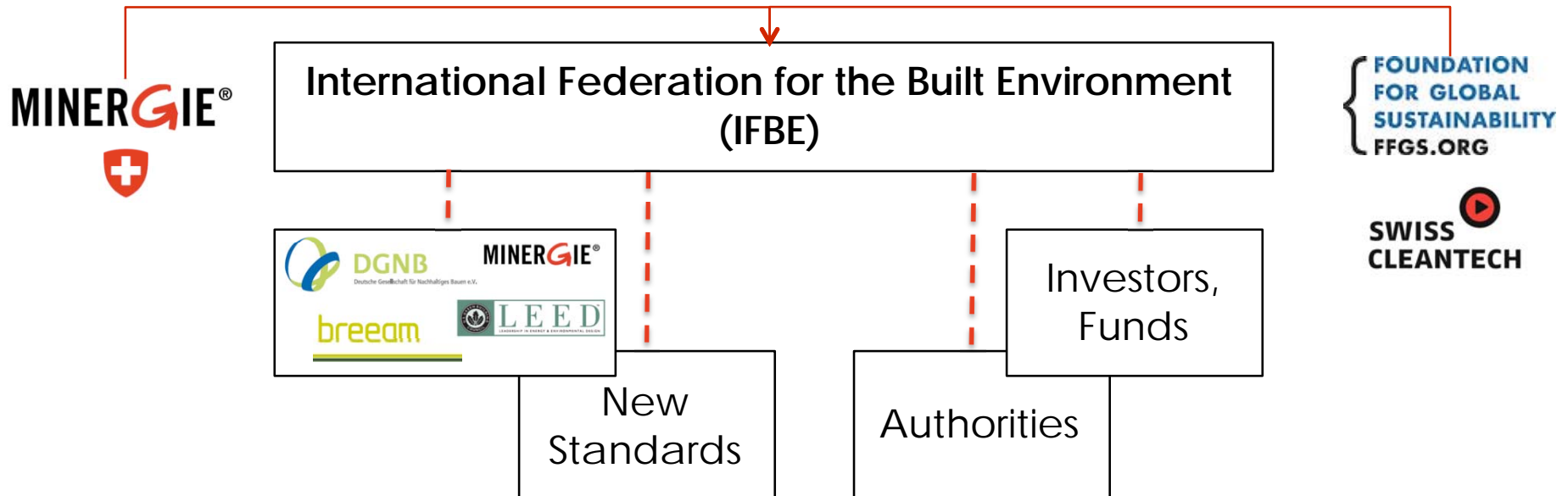
>> Goals: (1) Foster Sustainability (Swiss Know How), (2) Economic Development

International Building Standards, Current State & Issues



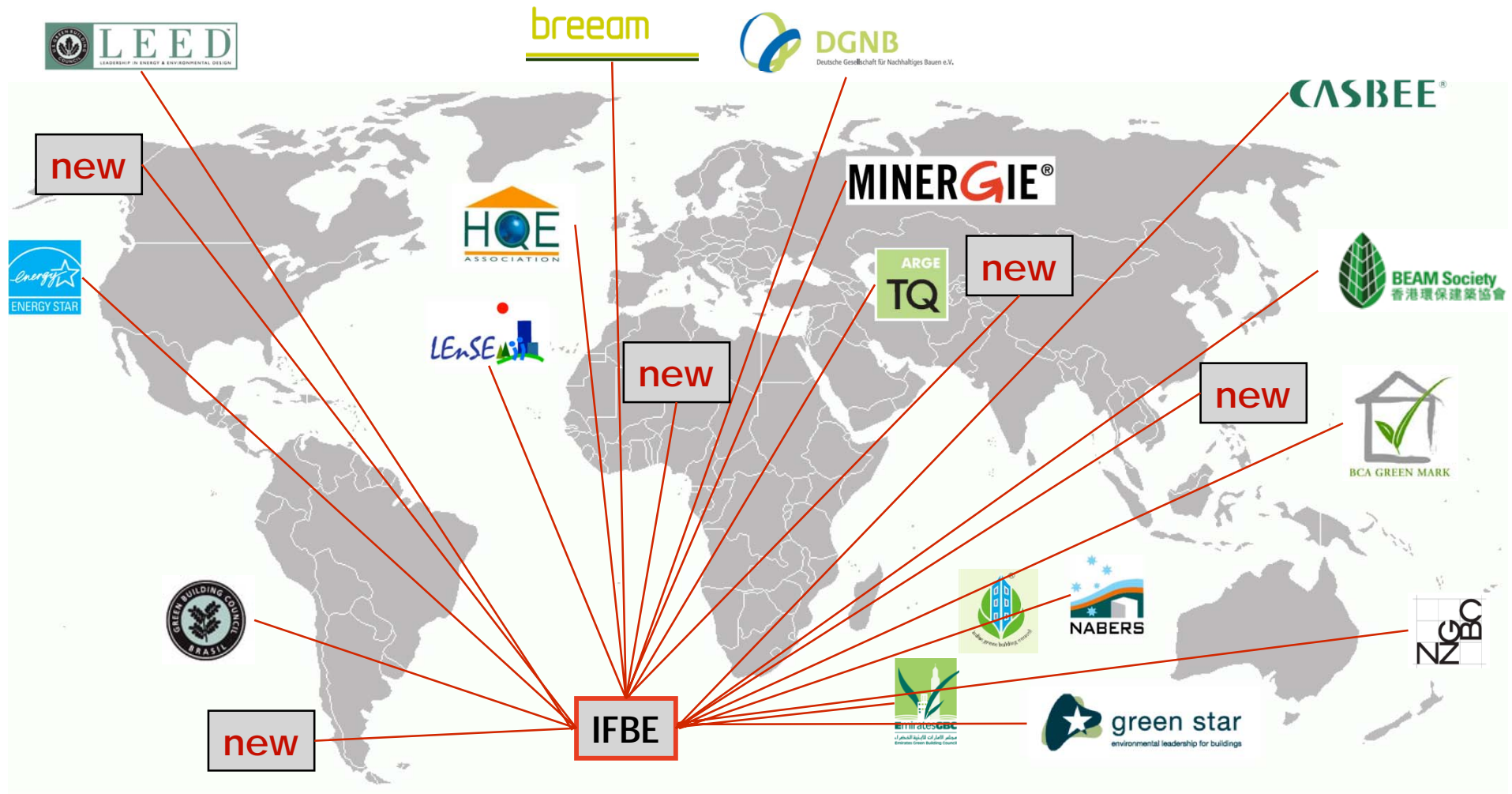
>> 60+ certification systems, comparability issues? best practices?

International Approach (Currently Implemented)



- Issues/Tasks:**
- >> Sustainable Building Standard Comparability Verification (short-term: existing standards & for investors)
 - >> International Best Practices & Knowhow Transfer (long-term: new building standards, regulatory-level interaction, developed & developing markets)

International Approach (Goal)



>> comparability & best practices (collection & dissemination)

Masdar City, Abu Dhabi (World-leading Eco-City, Swiss Village)



Masdar City Stats

- > Cleantech Cluster, **Swiss Hub**
- > 40'000 inhabitants, 50'000 commuters
- > 6m sqm of built-up area, USD22bn
- > 100% REN, CO2 neutral, zero waste
- > Cutting edge urban planning & building tech

IFBE Pilot Example

Swiss Embassy, Washington (Minergie P ECO, DC Reference)



Conclusion

Swiss/Turkish Partnership in Sustainable Building?

- Sustainability – global need, Swiss Cleantech efforts
 - Sustainable building is key
 - Switzerland has strong basis with Minergie (top design & tech, operational model, track)
 - International standards: Need for comparability & best practices
 - IFBE: Right international approach
 - IFBE: Strong pick-up (incl. US, China)
 - IFBE/Minergie: Turkey?
- > **Lets talk!**



Thank you - Document Information

Presented To

Swiss-Turkish Delegation Dinner Event, Zurich, 26/11/2010

Presented By

Foundation for Global Sustainability (FFGS) & Minergie Association, both for IFBE

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