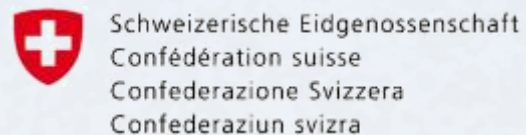
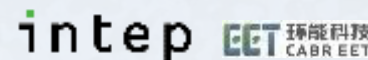


THE ZEB-CHINA PROJECT - ZERO-EMISSION BUILDING
中瑞零碳建筑合作项目



中华人民共和国
住房和城乡建设部



skat Swiss Resource Centre and
Consultancies for Development



高品质零碳社区 - 瑞士经验分享

中瑞零碳建筑系列研讨会
ZEB TALKS

INTEP/SKAT
SWITZERLAND
29th June 2022

QUALITY OF ZERO EMISSION DISTRICTS - EXPERIENCES FROM SWITZERLAND



We combine
strategies and
innovations to
create sustainable
solutions



茵态的服务包括社会，环境和经济领域的 综合咨询和应用性研究

Intep's services include integrated consulting and applied research
in the areas of society, environment and economy

- Daniel Kellenberger 丹尼尔·凯伦拜格尔
- Environmental Engineer, ETH Zurich 环境工程师，苏黎世联邦理工学院
- Department Leader Climate Protection and Energy Management
茵态保护气候和能源管理部门总监
- 25 years of experience in sustainable construction
在可持续建造领域25年工作经验
- From 1st of Nov. 2022 Professor for Sustainable Construction at
Applied University of Science and Arts Northwestern Switzerland
2022年11月起，瑞士西北应用科技大学可持续建造领域的教授

intep (茵态) 及专家介绍

ABOUT INTEP AND THE
PRESENTER

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Conclusions 总结语



最佳案例

GOOD EXAMPLES



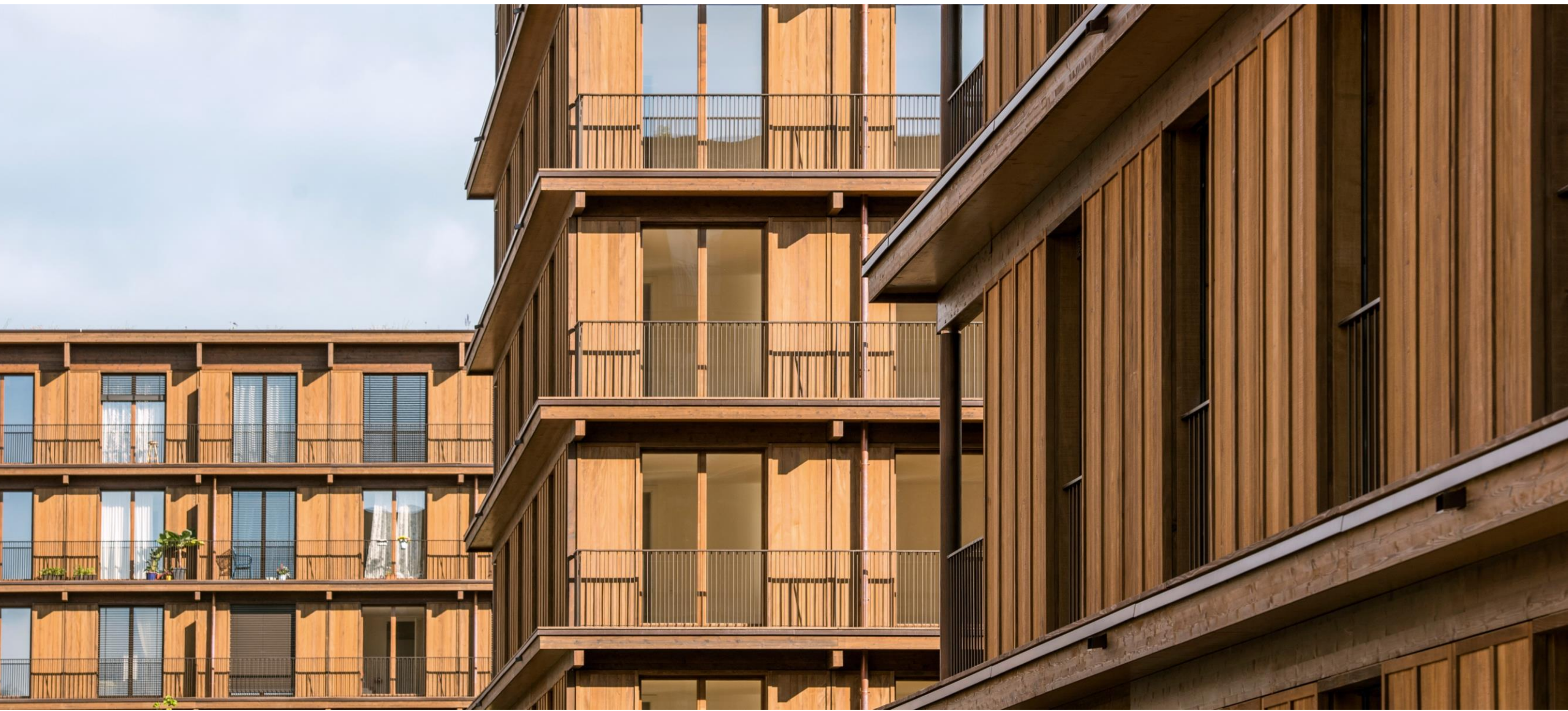
良好的公共交通

Good Public Transport



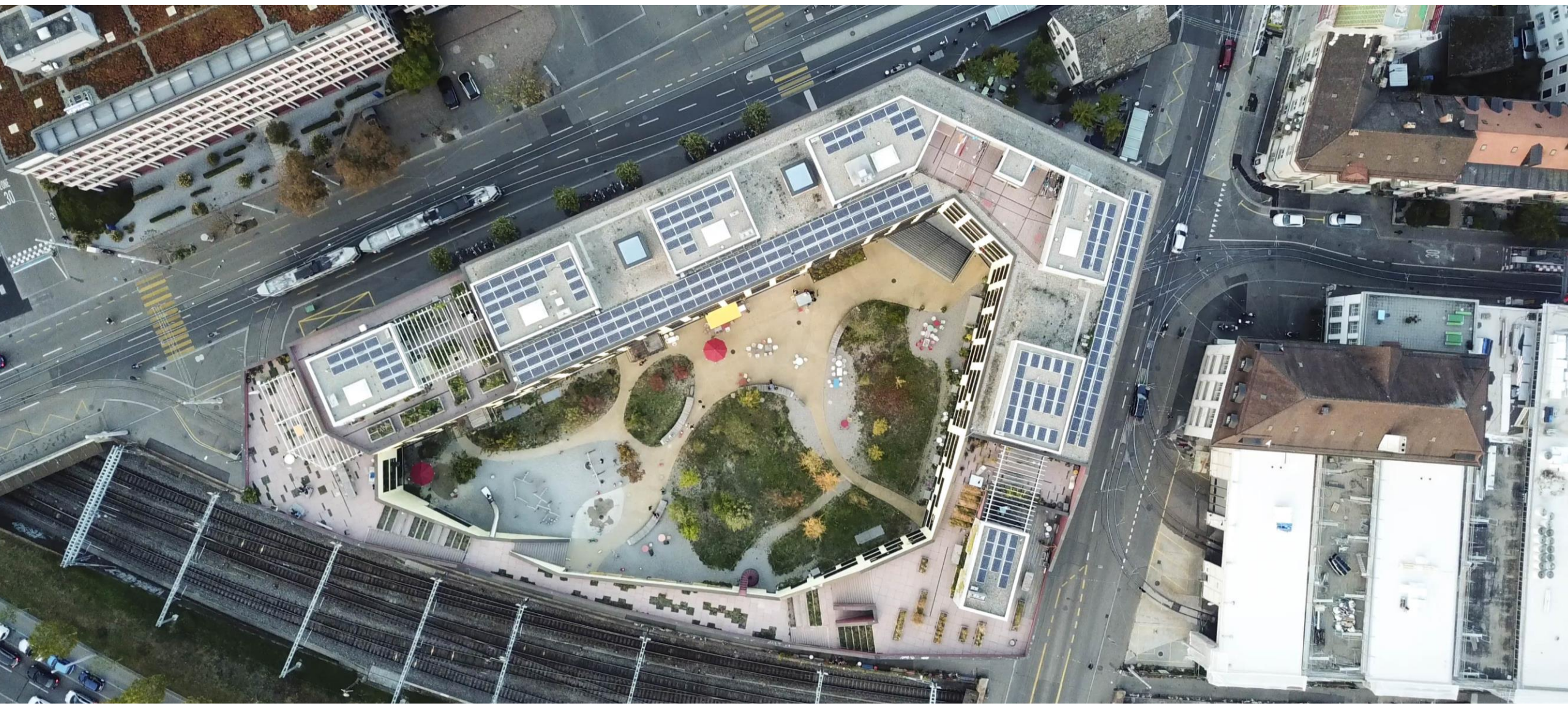
丰富的社区生活

Strong Community



低碳建造

Low Carbon Construction



100%可再生能源

100% renewable Energy



瑞士国家目标

National Goals of Switzerland

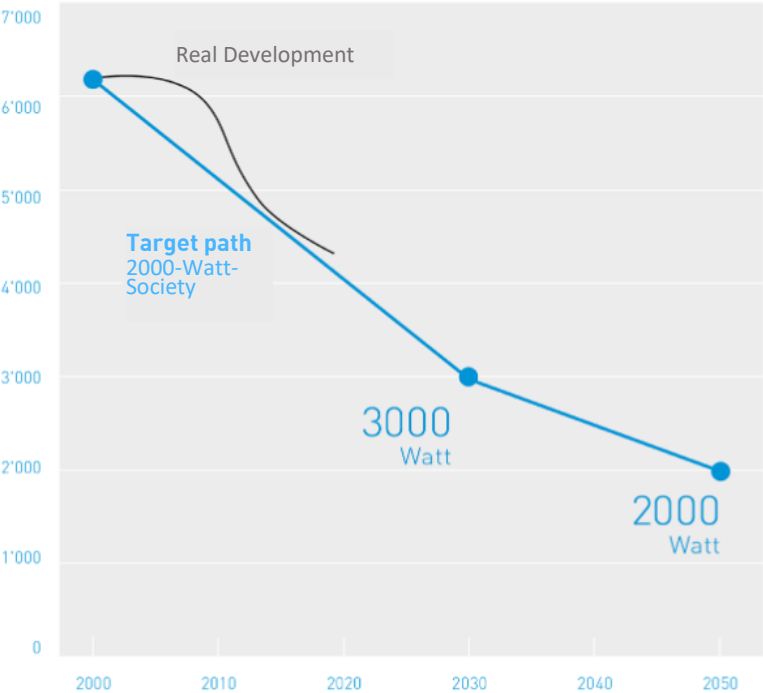
目标1：能效

Objective 1: Energy Efficiency

2000 Watt primary energy

Continuous output

2000瓦一次能源持续输出



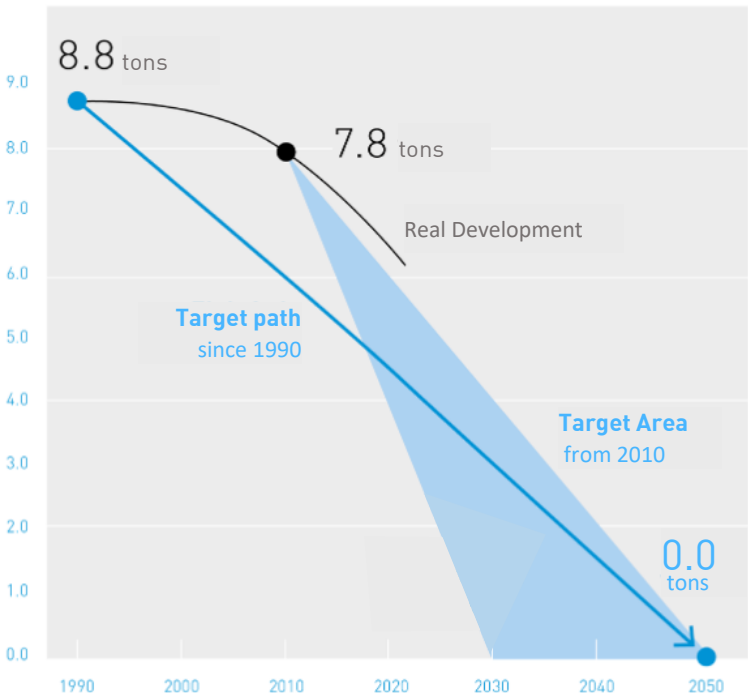
目标2：气候中和

Objective 2: Climate neutrality

Zero energy-related greenhouse

gas emissions

与能耗相关的温室气体零排放

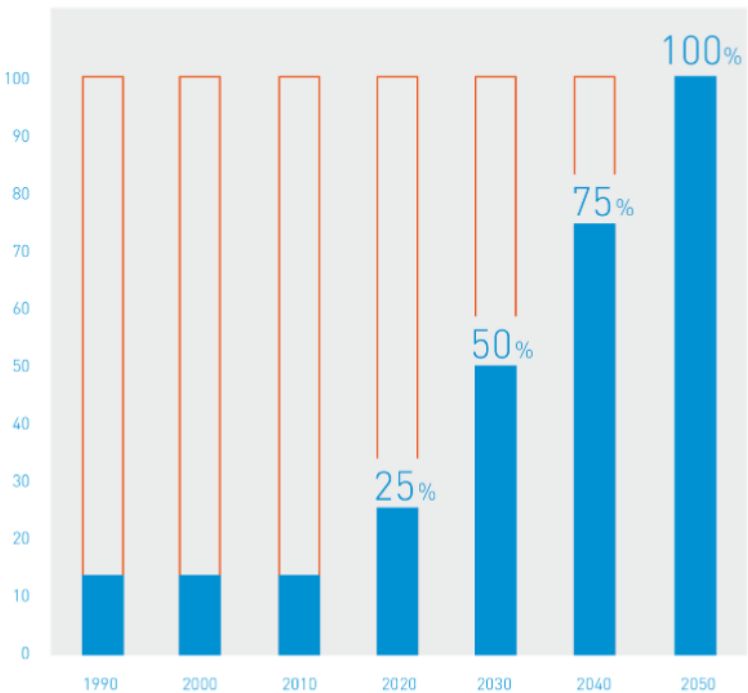


目标3：可持续性

Objective 3: Sustainability

100% renewable energy

100%可再生能源



2000瓦社会2050年的目标



EnergieSchweiz
für Gemeinden
2000-Watt-
Gesellschaft

OBJECTIVES 2000-WATT SOCIETY BY 2050



可持续的社区的要求

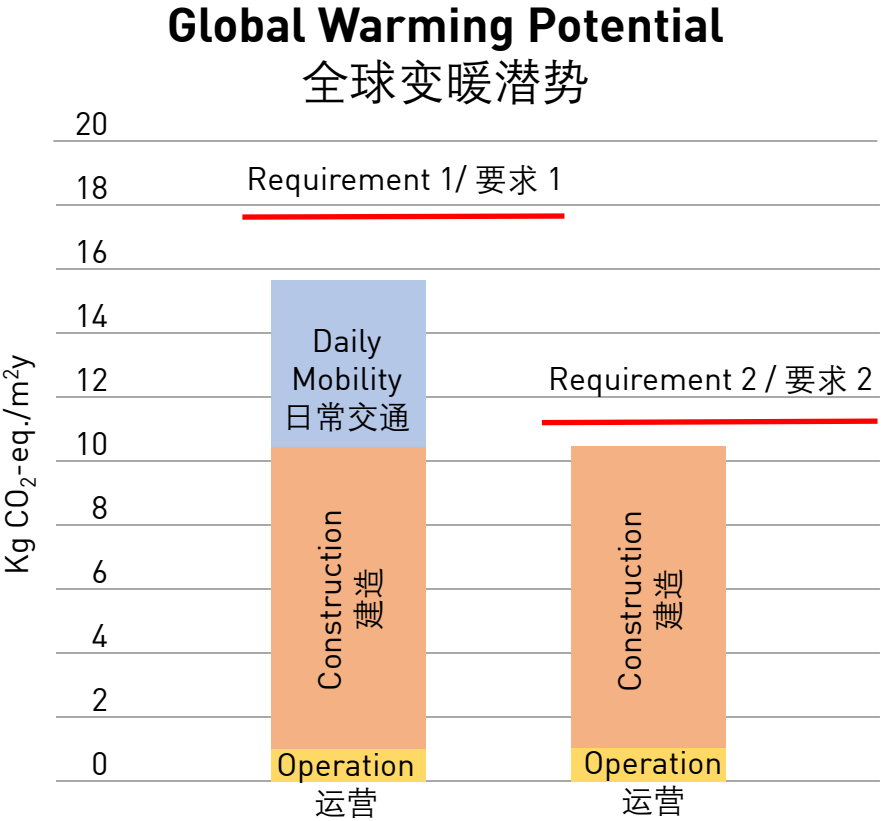
REQUIREMENTS OF A
SUSTAINABLE NEIGHBORHOOD

简单的评估方法：硬性因素
 SIMPLE ASSESSMENT: HARD FACTORS

一次能源总量，不可再生的，全球变暖潜势
 Primary energy total, non-renewable, global warming potential

系统边界：日常交通，建造，运营
 System boundary: Daily Mobility, Construction, Operation

计算方法基于瑞士工程师和建筑师协会（SIA）
 编写的标准
 Calculation method based on standard from Society of
 Swiss Engineers and Architects



设定目标，而不是路径

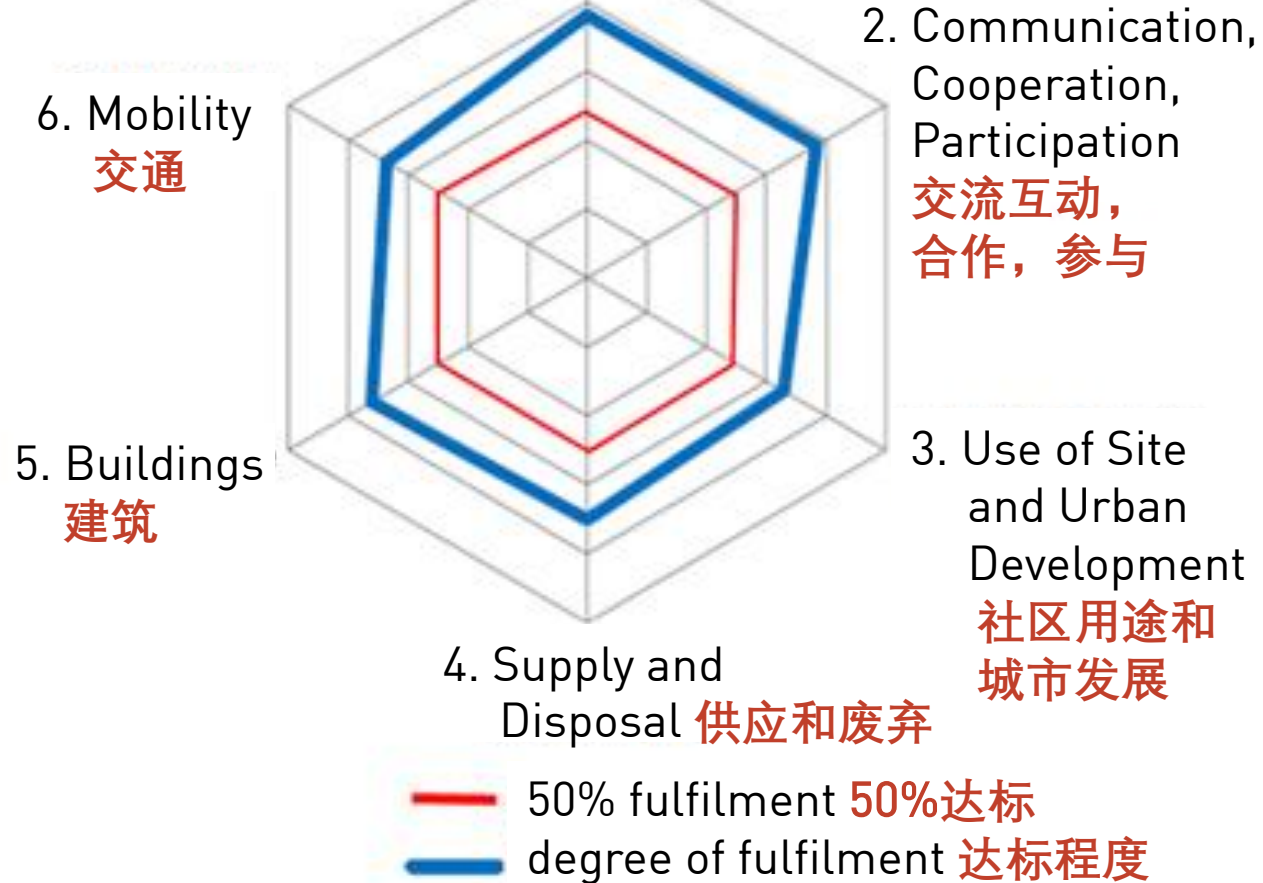


THE GOAL IS SET,
 NOT THE PATH

1. Management 组织管理

简单的评估方法：软性因素

SIMPLE ASSESSMENT: SOFT FACTORS



质的要求

Qualitative requirements

6个领域

6 subject areas

按达标程度来测定

Measured in fulfilment grades (minimum 50%)

设定目标，而不是路径



THE GOAL IS SET,
NOT THE PATH



2021伯尔尼Burgunder社区
Burgunder, Bern 2021



2021 苏黎世保险公司园区
Quai Zurich Campus, Zürich 2021



2019 l'Etang Vernier 小区
"Quartier de l'Etang" Vernier 2019



2020 库尔城的“Kleinbruggen”小区
“Kleinbruggen” Chur 2020

2000瓦社区遍布瑞士各地



EXAMPLES OF
2000-WATT-DISTRICTS



零碳可持续社区相关重要主题

IMPORTANT TOPICS OF ZERO EMISSION
/ SUSTAINABLE DISTRICTS



硬性因素：需要考虑的方面

ASPECTS TO BE TAKEN INTO
ACCOUNT (HARD FACTORS)



Die All-In-One Plattform für Ihre Community

homegif5

Clever miteinander leben.

Ob zuhause, am Arbeitsplatz oder in der Freizeit: Bauen Sie eine Brücke zwischen Digital und Real und entfalten Sie das volle Potenzial der Menschen in Ihrer Gemeinschaft – denn das Gute liegt oft so nah.

DEMO VEREINBAREN MEHR ERFAHREN

居民之前良好的沟通交流
Good communication with and between the inhabitants



软性因素：需要考虑的方面

ASPECTS TO BE TAKEN INTO ACCOUNT (SOFT FACTORS)



总结语

CONCLUSIONS

减排/零碳 LOW/ZERO CARBON

1

2000瓦社区是低/零碳供能

减少日常交通和建材的碳排放是很不易的，因此用于运营的能必须（接近）100%来自可再生能源

2000-WATT-DISTRICT HAVE LOW/ZERO CARBON ENERGY SUPPLY:

It is hard to reduce the carbon impact from daily mobility as well as from the materials and therefore operational energy needs to be close to 100% renewable

低能耗 LOW ENERGY

2

2000瓦社区能耗很低

为了能总体实现低能耗，必须在运营和隐含能耗之间达到良好的平衡，这也意味着要找到最优的保温层厚度

2000-WATT-DISTRICTS HAVE A LOW ENERGY CONSUMPTION:

For achieving an overall low energy consumption, a good balance between operational and embodied energy must be targeted which means finding the optimal insulation thickness

生活质量 QUALITY OF LIFE

3

2000瓦社区是高质量生活的基础

通过提供不同服务和面向用户的基础设施，人们被连接在一起并成为社区的主人

2000-WATT-DISTRICTS FORM THE BASIS FOR A HIGH QUALITY OF LIFE:

By offering different services and a user-focused infrastructure, people get connected and they take ownership of the district

让您带回家的总结语

TAKE HOME MESSAGES

感谢您的关注

THANK YOU FOR YOUR ATTENTION