



**UNIVERSIDADE
DE LISBOA**

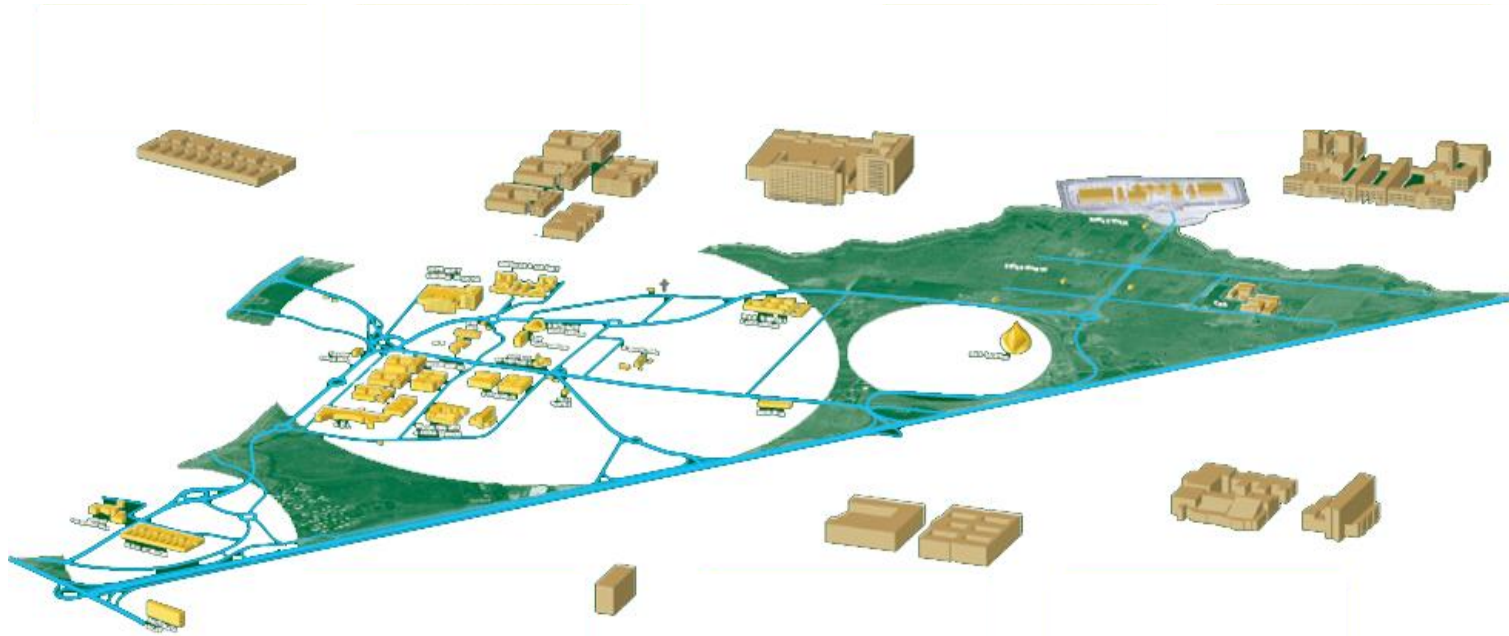
Ugaf at Rome: together for a more sustainable future

Stefano Cordiner
Università di Roma «Tor Vergata»
cordiner@uniroma2.it

Summary

- Sustainability;
- The three large Public Universities in Rome:
- Actions under the UGAF umbrella:

The Campus



- Six schools (Law, Business and Enterprise, Engineering, Humanities, Science, Medicine)
 - **43.000** **Students**
 - 1.570 Faculties (staff)
 - 1.066 Technician and administration (staff)

Carbon Footprint evaluation and mitigation

In cooperation with the Italian Environmental Ministry

- A centralized «Carbon Footprint analysis office» as a tool for the strategic planning of design and management decisions
 - WRI/WBCSD GHG Protocol and other international standards:
 - Stationary sources contribution;
 - Mobility contribution
 - Other GHG gases emissions;
 - Non direct emissions correlated to standard campus activities (e.g. student mobility, professors mobility, etc)
- Test applications of the methodology to selected activities:
 - New buildings design;
 - New management solutions
 - Users Awareness and consciousness

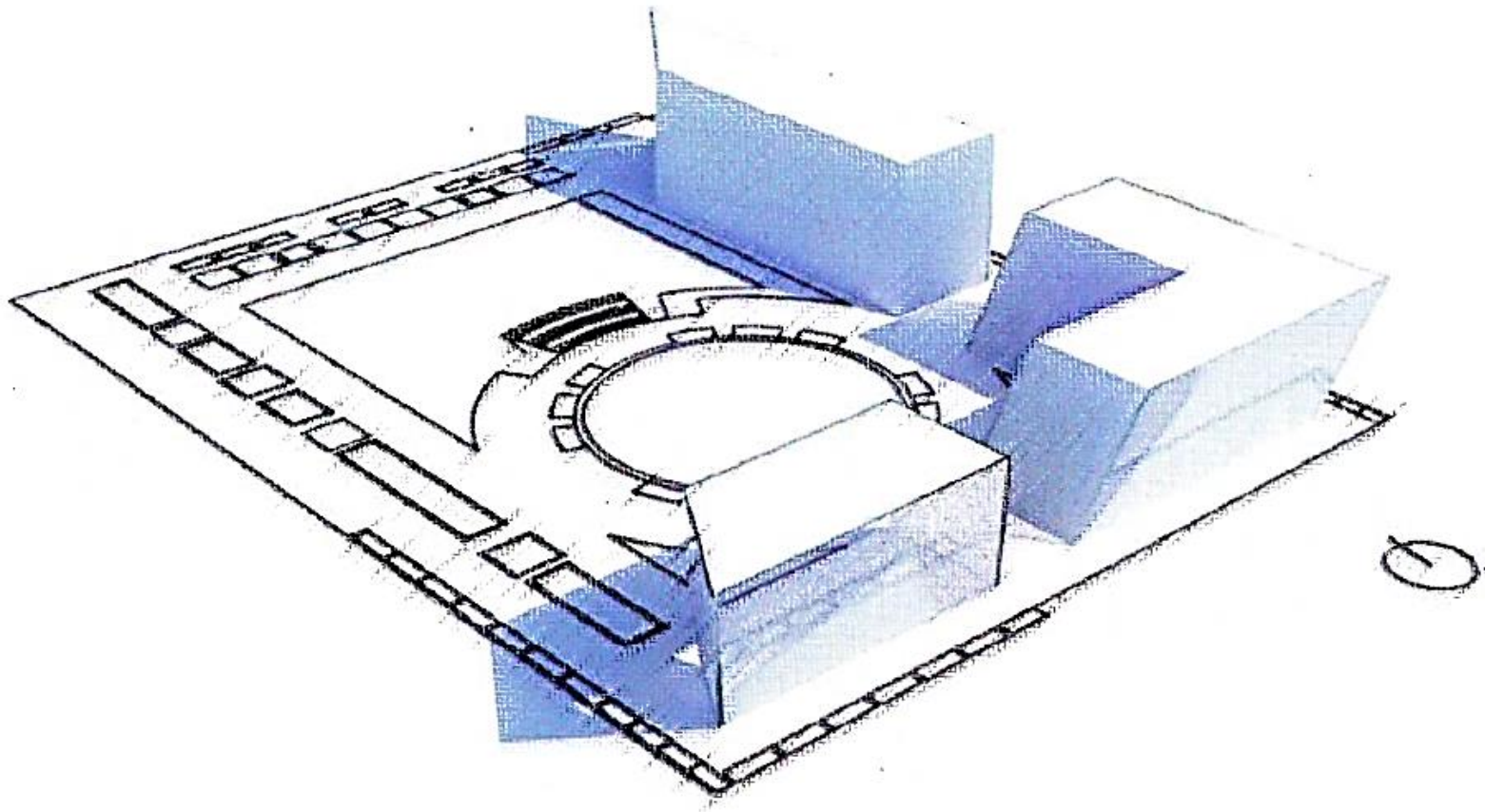
Carbon Footprint

EMISSIONI PER AMBITI	tCO ₂ _{eq}	kgCO ₂ _{eq} /st	kgCO ₂ _{eq} /m ²
Emissioni dei GHG _gas naturale	443,4	87,02	14,74
Emissioni dei GHG _refrigeranti	0,0	0,00	0,00
AMBITO 1: Emissioni dirette dalla Facoltà	443,4	87,02	14,74
Emissioni dei GHG _energia elettrica	904,2	177,48	30,06
AMBITO 2: Emissioni indirette	904,2	177,48	30,06
Emissioni dei GHG _materiali di input	53,0	10,40	1,76
Emissioni dei GHG _missioni	176,9	34,71	5,88
Emissioni dei GHG _mobilità dipendenti	39,5	7,75	1,31
Emissioni dei GHG _gas naturale fug.	44,4	8,71	1,48
Emissioni dei GHG _perdite T&D	57,9	11,36	1,92
Emissioni dei GHG _mobilità studenti	1210,9	237,65	40,25
Emissioni dei GHG _studenti internazionali	164,0	32,18	5,45
Emissioni dei GHG _gestione di rifiuti	17,3	3,40	0,58
AMBITO 3	1763,7	346,17	58,63
AMBITO 1+AMBITO 2+AMBITO 3	3111,4	610,7	103,4

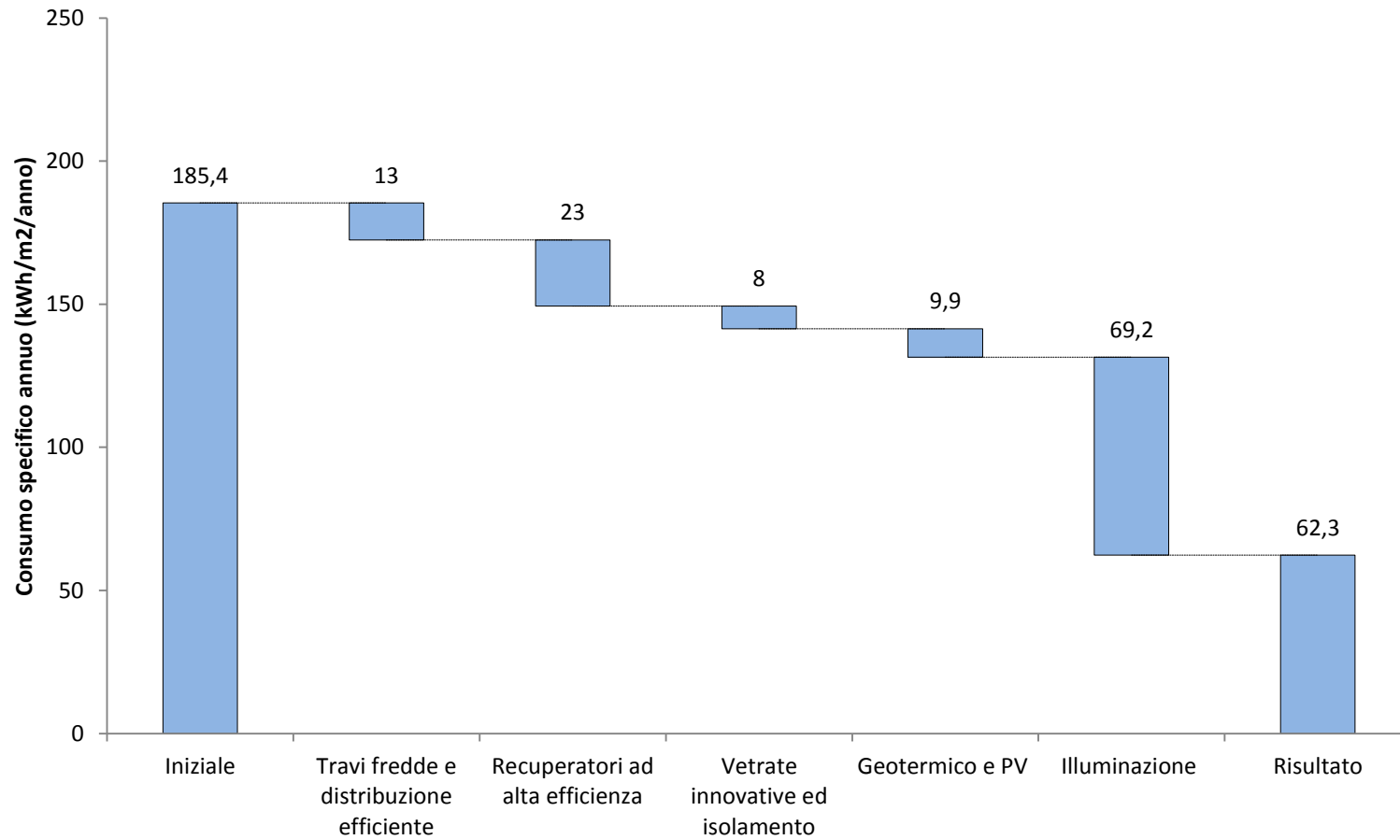
Tabella 9. Carbon footprint della Facoltà di Economia – tabella riassuntiva

Specific Actions: The New Rectorate Building

In cooperation with the Italian Ministry of Environment

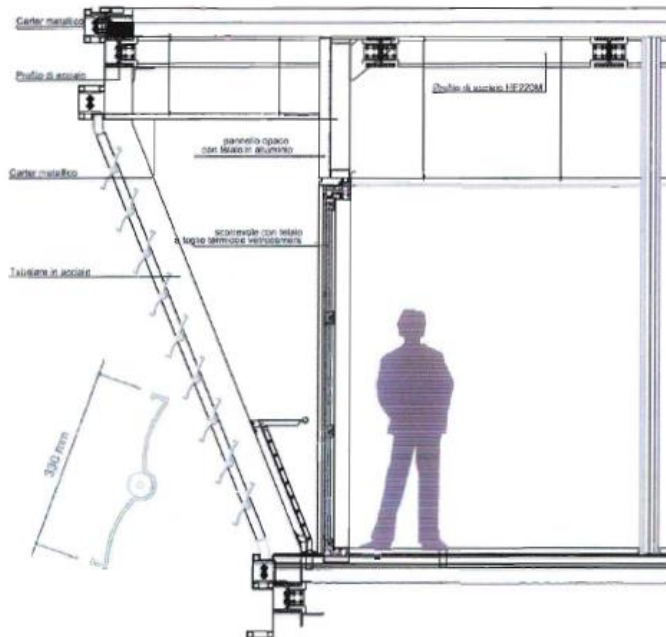


Breckdown of the different solutions



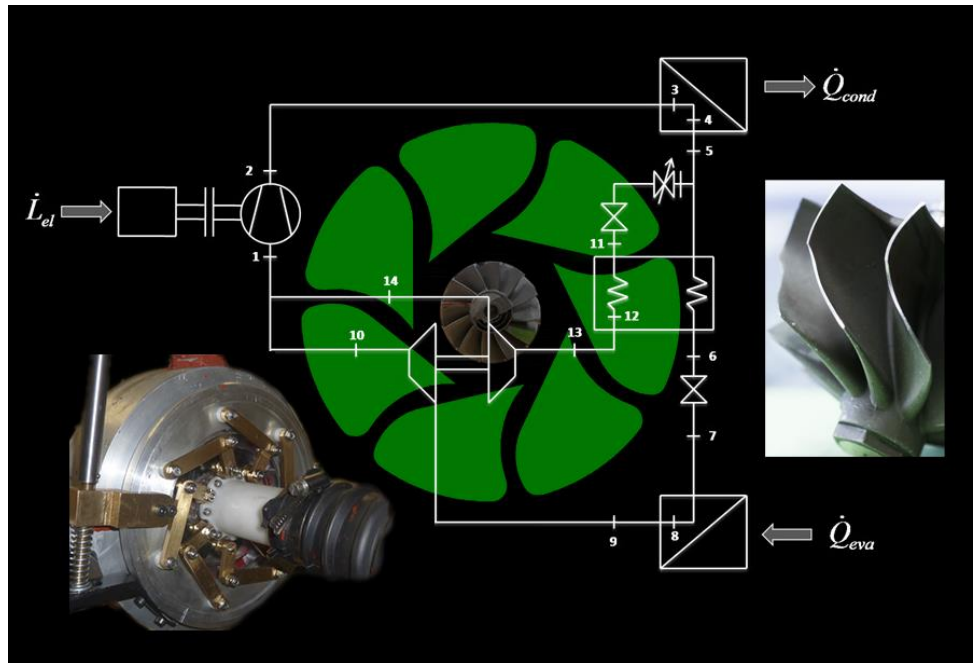
Development of New technologies

- In cooperation with Chose and DyePower Consortium

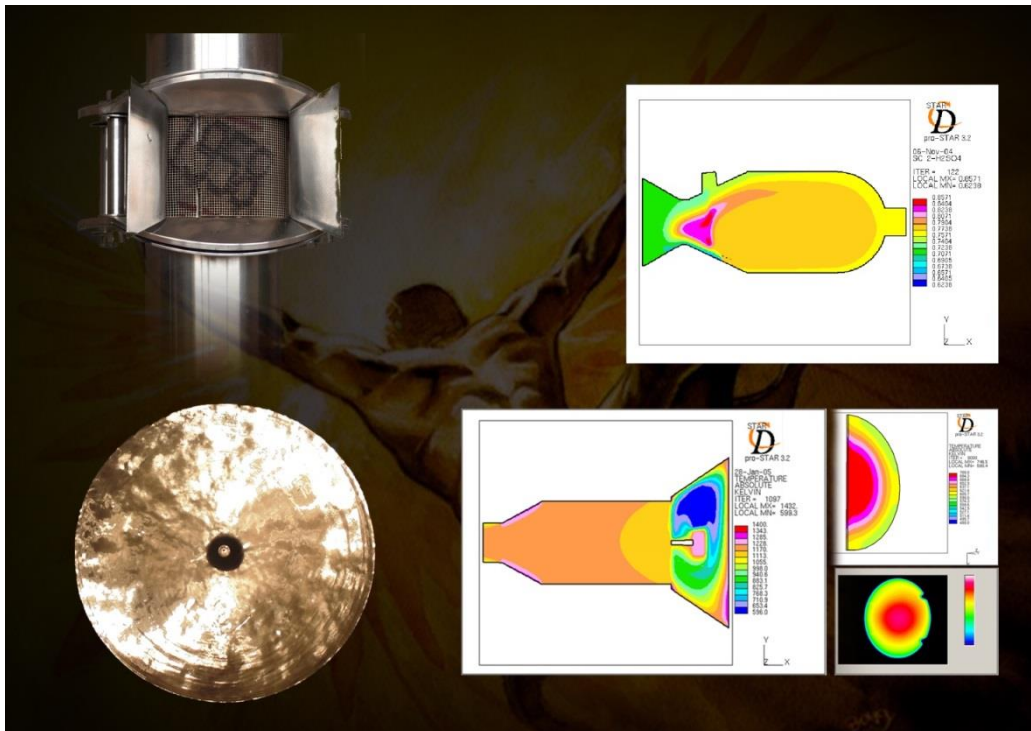


New concepts developments

- Energy saving innovative concepts applied to industrial criogenic plants (COLD-ENERGY Project)



- ✓ **Solar Thermo-chemical Hydrogen Production**
- ✓ **Development of an Hardware Solar Simulator**
- ✓ **Development of high-temperature Solar Receivers**



citera

centro
interdisciplinare
territorio
edilizia
restauro
ambiente



Hydro Methane Blends Use in a CHP Plant: an Energy- Environmental Analysis

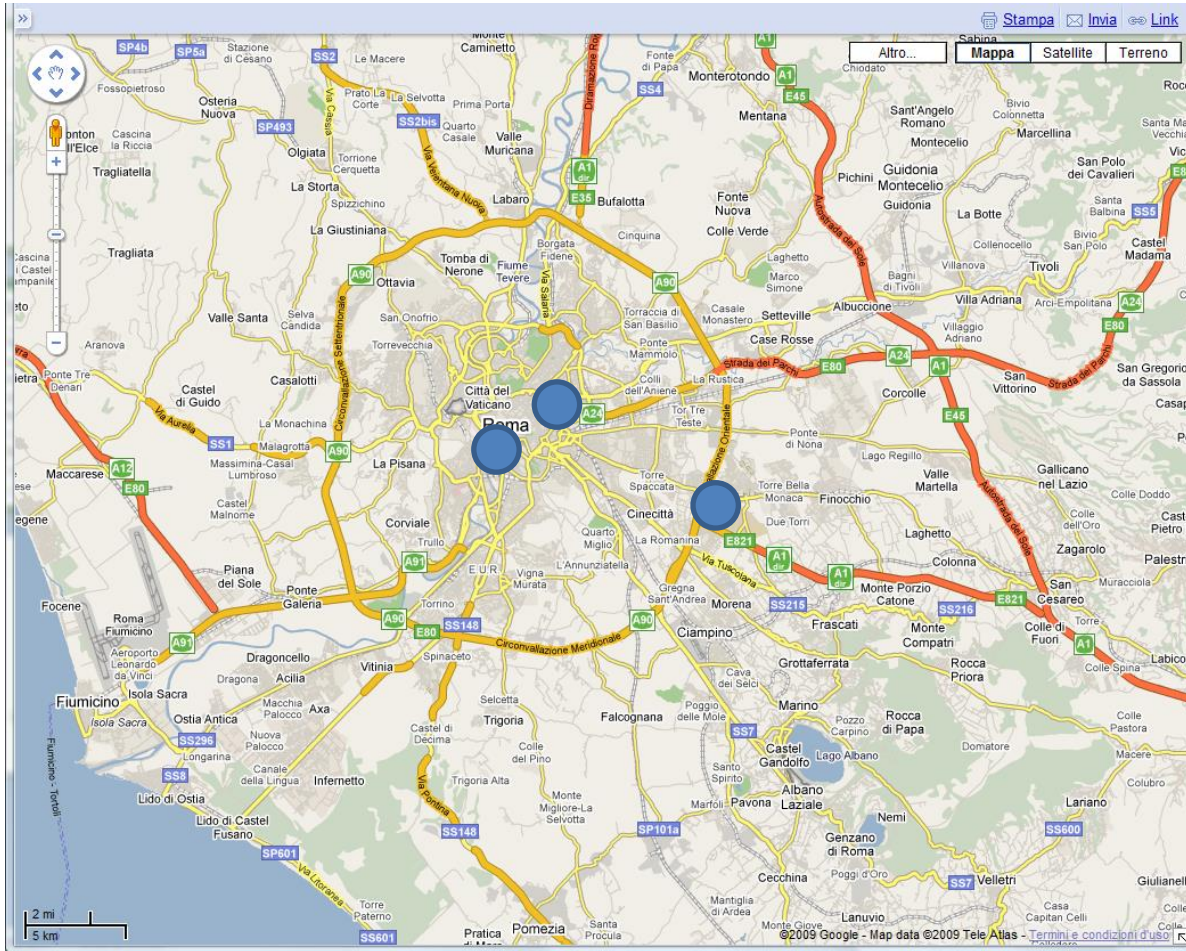
Livio de Santoli, Gianluigi Lo Basso, Daniele Bruschi

CITERA Interdisciplinary Centre for Landscape,
Building, Conservation, Environment



SAPIENZA
UNIVERSITÀ DI ROMA

Universities as change agents for the cities' environmental sustainability



The Opportunities of a joint action

- ≈130.000 Students
- More than 4000 Faculties
- More than 3000 staff



- ≈35.000 Students
- More than 900 Faculties
- More than 450 staff



- ≈ 43.000 Students
- More than 1.570 Faculties
- More than 1000 Staff

Università degli Studi di Roma "Tor Vergata"



The UGAF umbrella is a catalyst

- Periodic coordination meeting on sustainability initiative
- Sharing of experience and best practices
- Common solutions for a sustainable mobility
- A significant impact on Municipality policies for urban sustainability
- A full scale living lab for sustainability actions

- Thank you for your attention