

CHARACTERIZING THE AGRIVOLTAIC GROWING ENVIRONMENT

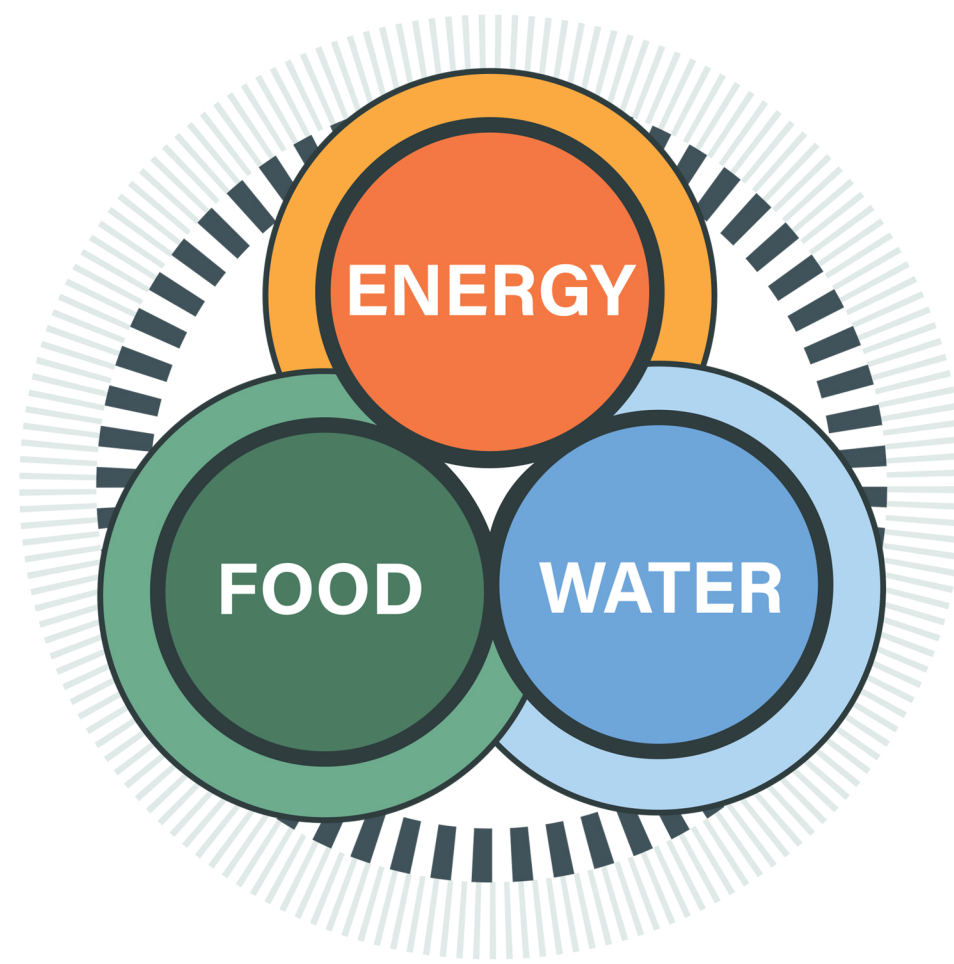
CONFLICT & OPPORTUNITY

- Food Energy Water Nexus
 - Land Use Conflict >>> energy production moving into agricultural lands
 - Fresh water resources are stressed across the world > semi-arid regions
- Agrivoltaic Opportunity
 - Co-location of solar (photovoltaics) and agricultural production
 - Increase land use efficiency & potentially benefiting both systems
- Agriculture + Solar Developer Cooperation
 - Finding common ground between agricultural producers and solar developers remains a challenge for large scale adoption

FEW NEXUS

More **FOOD**
More **ENERGY**
Limited **WATER**

30% of energy use
70% of water use
10 million acres for renewables



FOOD

Agriculture accounts for 70% of total global freshwater withdrawals, making it the largest user of water. Food production and supply chain consumes about 30% of total energy globally (UN Water, 2021).

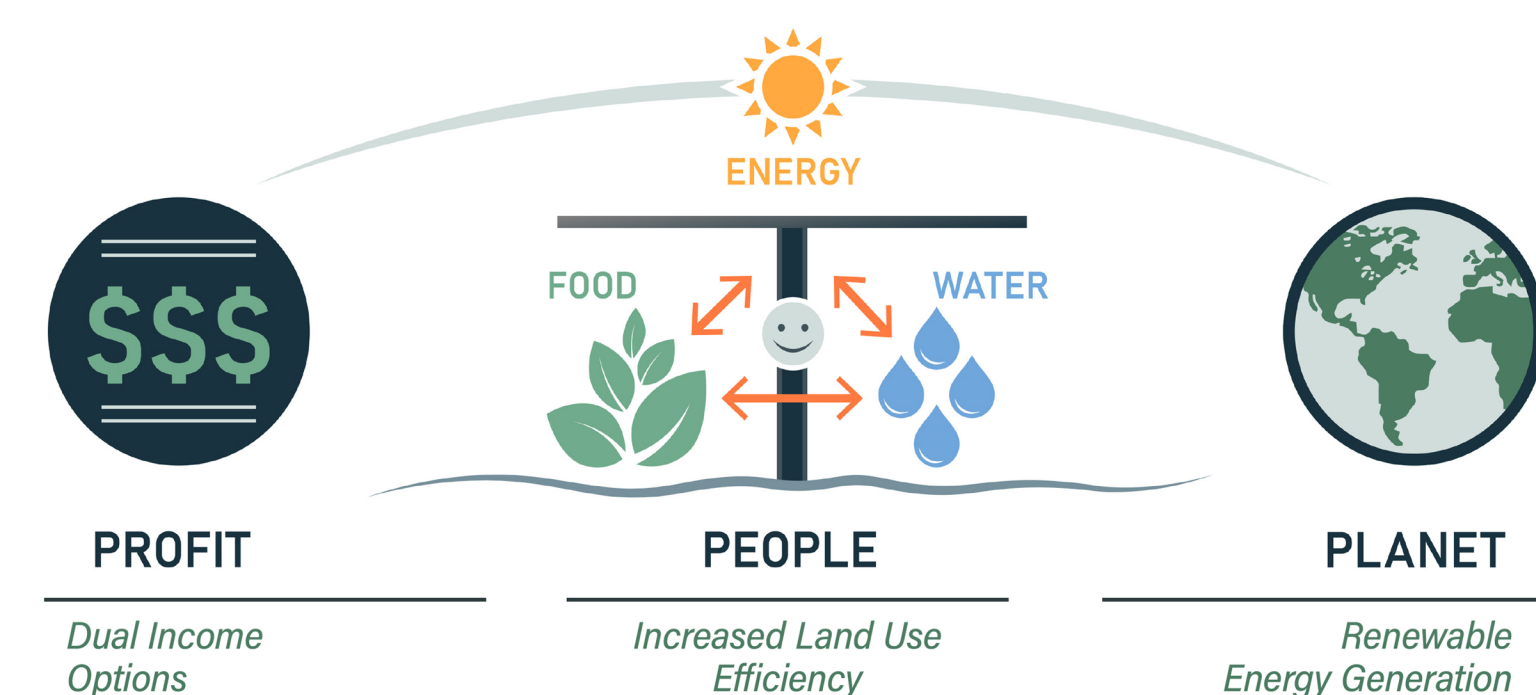
ENERGY

Demand for energy is on the rise across the globe. Renewable energy generation is taking the forefront due to environmental and economic reasons. There is growing competition for land use in the energy sector (FAO, 2021).

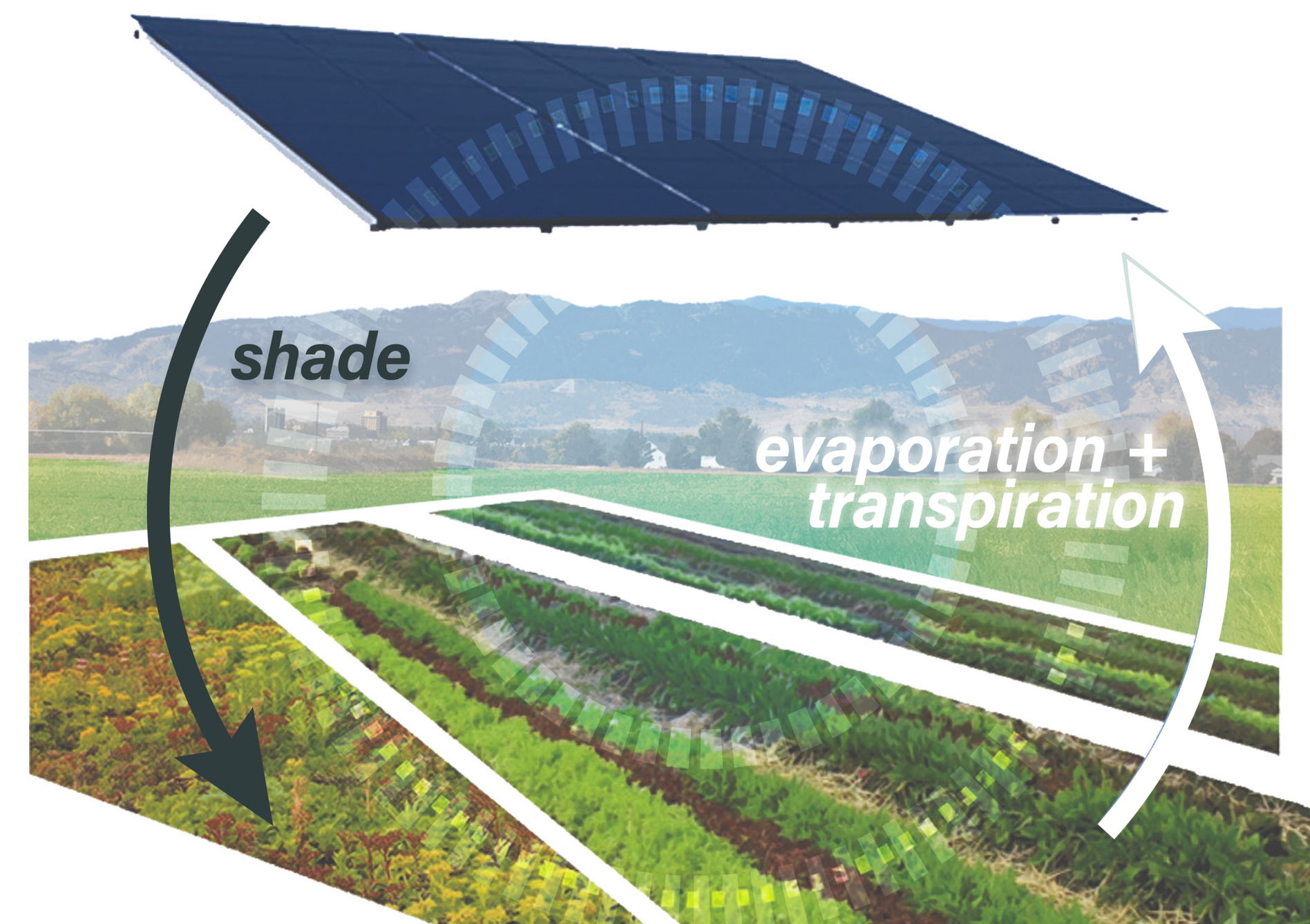
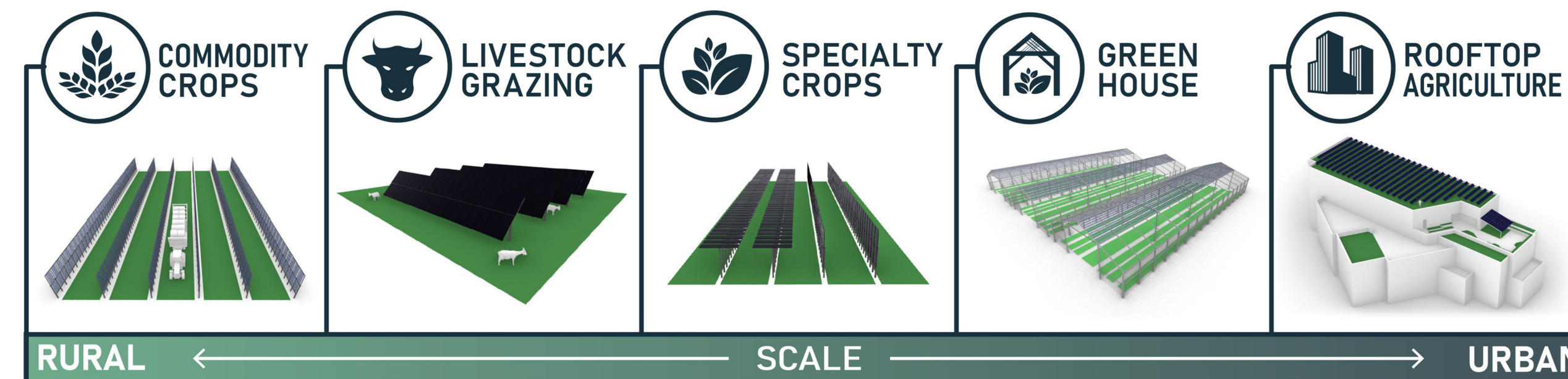
WATER

Water is a finite resource having to serve exponentially more people and usages, and so ensuring everyone has access to a reliable supply is crucial to human survival and sustainable progress (UN Water, 2021).

TRIPLE BOTTOM LINE

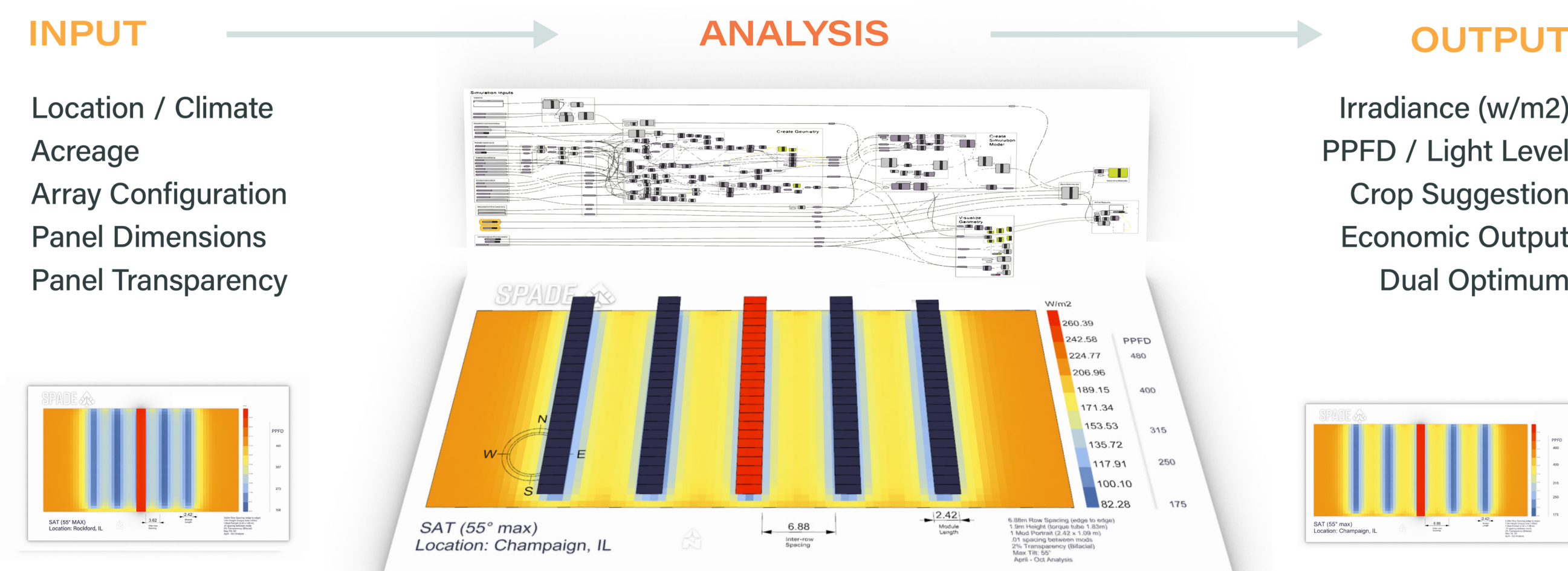


AGRIVOLTAICS = AGRICULTURE + PHOTOVOLTAICS



AGRIVOLTAIC SYNERGIES

AGRIVOLTAIC 3D MODELING (SPADE)



RESEARCH & RESULTS

