



The “Biology Valley” in Ecuador

An opportunity for a territory with
a high level of biodiversity

A Catalyst International Economic Project
in association with Direzione Innovazione

Milan (Italy)



Region	Climate	Temperature	Sunlight exposure
Coast	Tropical	25° C	Stable
Sierra	Mild	22-30°C / 8-20° C	Stable
Amazon	Hot-humid	25° C	Stable
Galapagos	Mild	22-32° C	Stable

25 climatic environments

Species	World	Ecuador
Plants	370,000	18,500
Birds	8,700	1,479
Mammals	4,500	765
Reptiles	6,300	1,071
Fish	23,000	3,910
Insects	900,000	153,000
Other	500,000	85,000

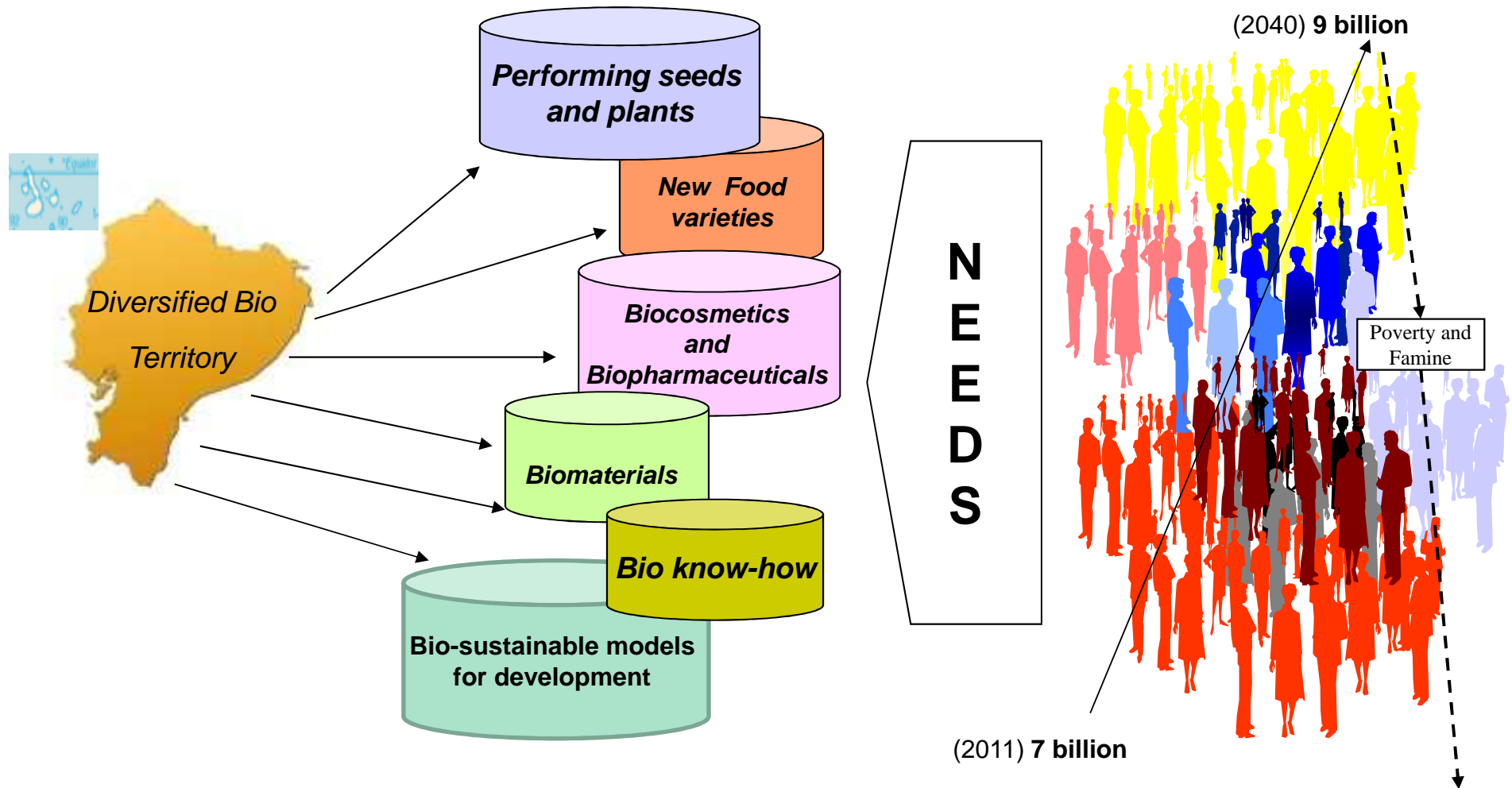
The most bio-diverse country

- Only 150 of the 10-50,000 of the world's edible resources are actually used for human consumption
- 15 species make up 90% of the world's food
- Approximately 60% of our diets consist of wheat, corn and rice



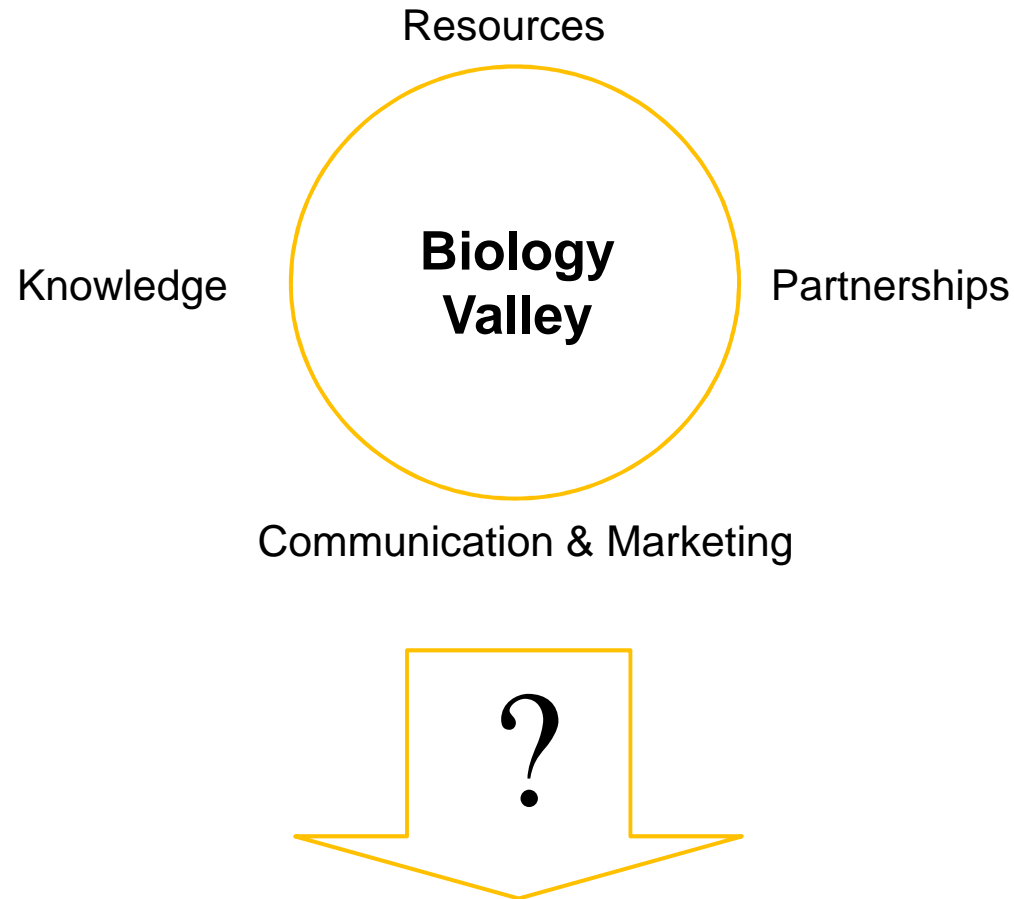
The development opportunities for an area characterized by a high level of biodiversity correspond with the world's increasing need to consume finite resources

RELATIONSHIP BETWEEN THE HOLDERS OF BIODIVERSITY AND GLOBAL NEEDS



The “Biology Valley”, which will be established in a highly bio-diverse territory, will act as a “factory” to create resources and meet global needs through responsible consumption

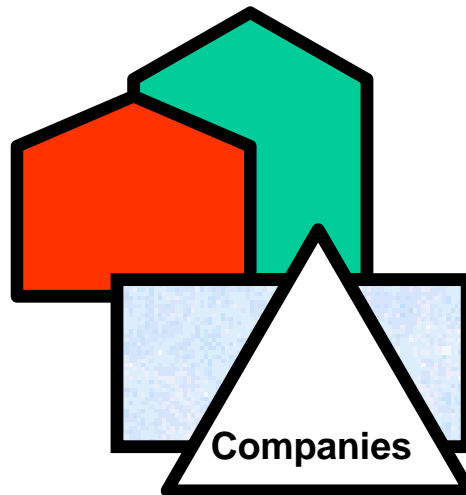
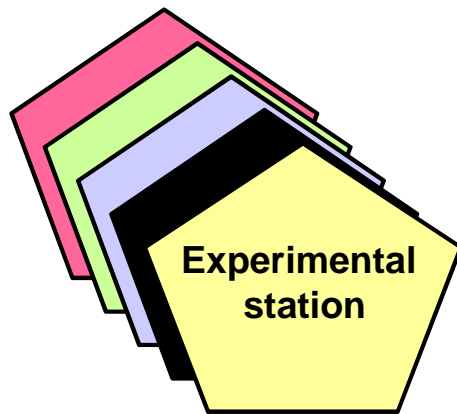
RELATIONSHIP BETWEEN THE HOLDERS OF GLOBAL BIODIVERSITY AND NEEDS



How to put all of these objects together in a Biology Valley?

Biology Valley will be realized through the design of prototyping models, via biology research centers and the most promising discoveries to identify appropriate and new opportunities, and through the encouragement of start-ups in the bio-business. Successful project implementation will establish Biology Valley as a reference point for applied biology and strengthen its competitive position in the global economy via attraction of sector-specific knowledge

MACRO STAGES OF DEVELOPMENT OF BIOLOGY VALLEY



Macrophases differ depending on the content and purpose

CONTENT AND PURPOSE OF MACRO STEPS FOR CREATION OF BIOLOGY VALLEY



Information (market, resources, partners)

➤ generation of ideas

Planning

- strategic ➤ selection of ideas

- operative ➤ goals & tools

Business model

➤ creation of experimental stations, and partnerships for the accumulation of knowledge

Monitoring

➤ ideas, goals, tools, evaluation, development for start-ups

Business plan

➤ objectives, resources, investments and partnerships

Operations management

1) organization ➤ processes and structures

2) marketing ➤ channels, industrial and commercial partnerships, talent recruiting, R&D

3) communication ➤ network of knowledge

4) planning ➤ budget, new business plans for new start-ups

Reporting

➤ control of budgets and plans

Concentration of investments in facilities for biological experimentation for biodiversity

➤ biological research and development of new varieties

➤ valorization of species unknown in the global consumption circuits

Ideal conditions for investments in bio-business

➤ attracting global investment

➤ a catalyst for global talents

➤ concentration of knowledge

➤ exports of biological know-how and principles that can be used by mass global manufacturers