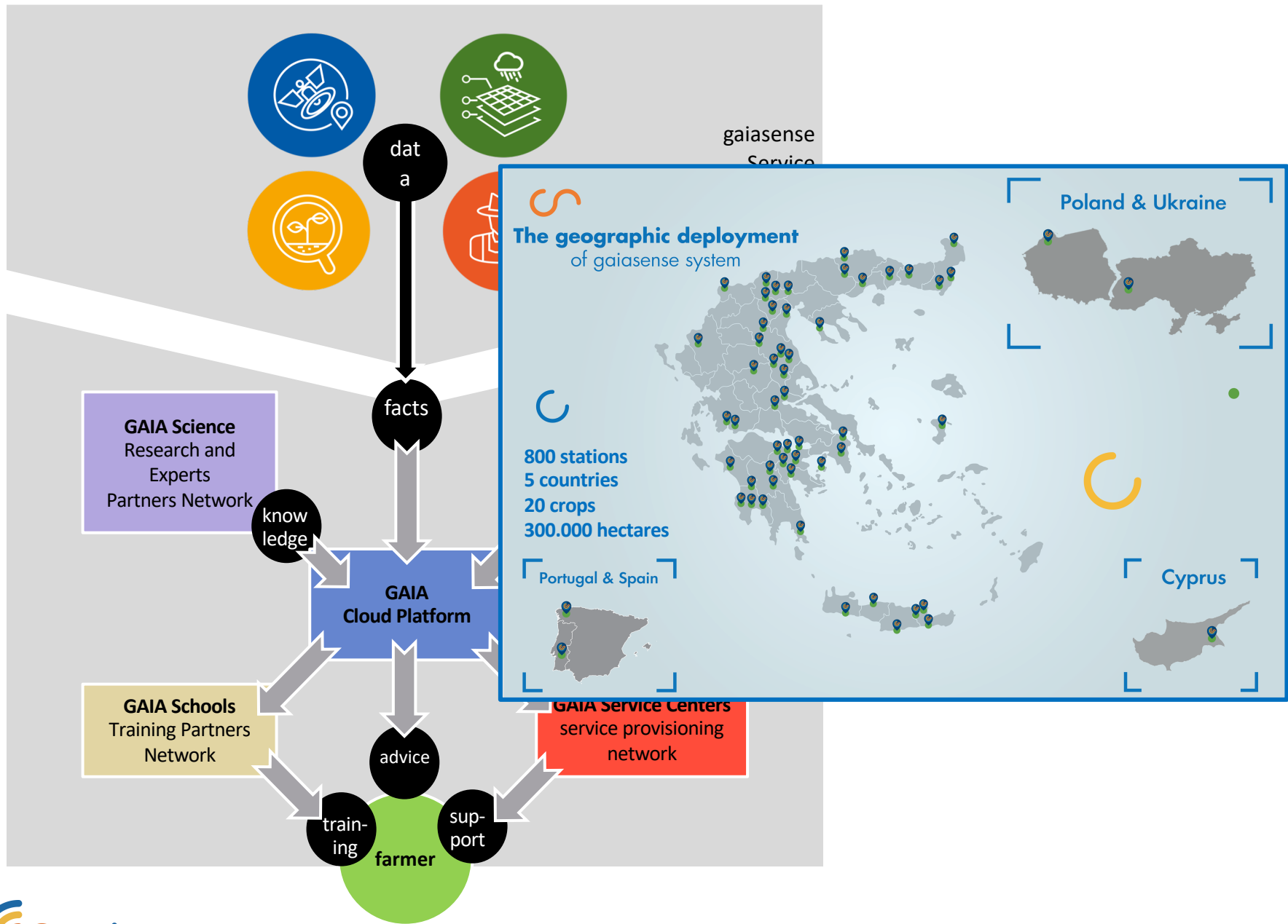


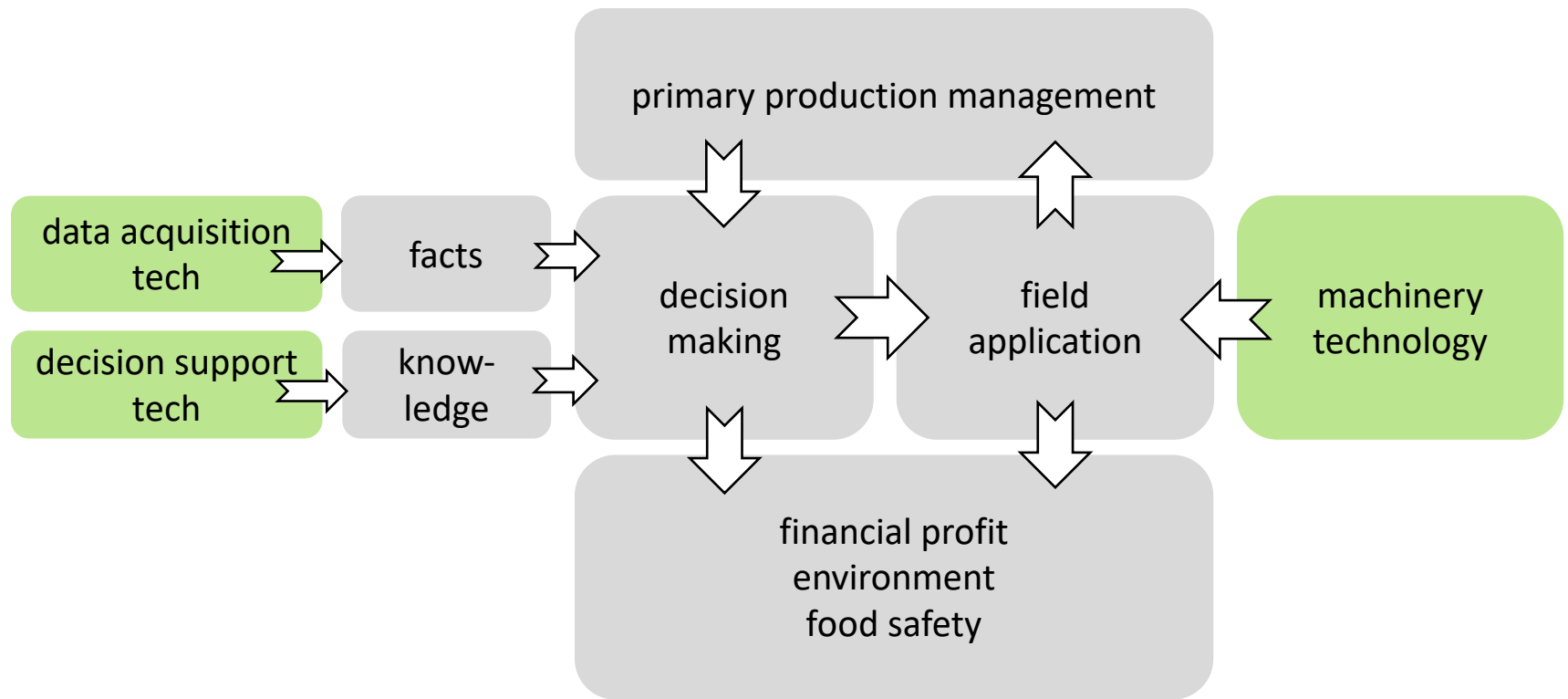
# Smart Farming and Digital Agriculture Platform



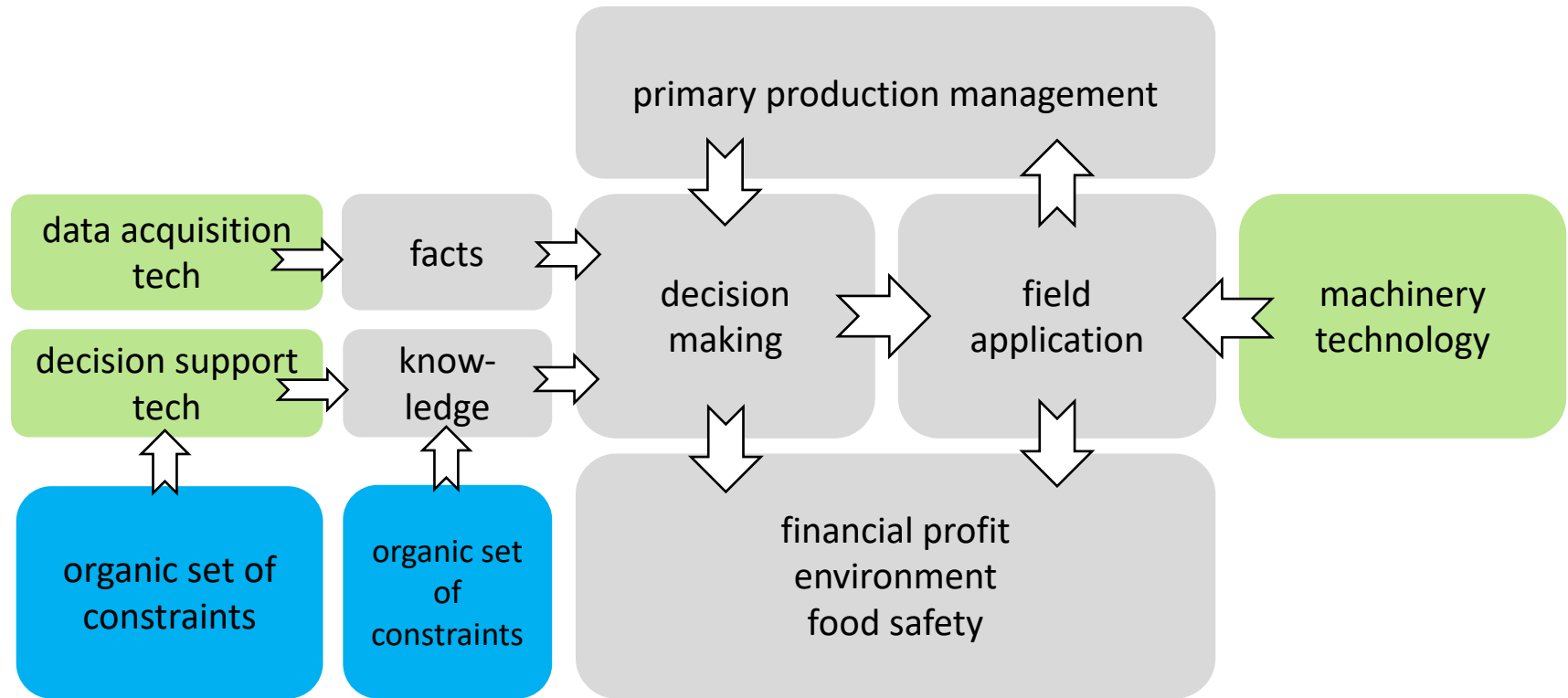
Fotis Chatzipapadopoulos



# what smart farming is about?



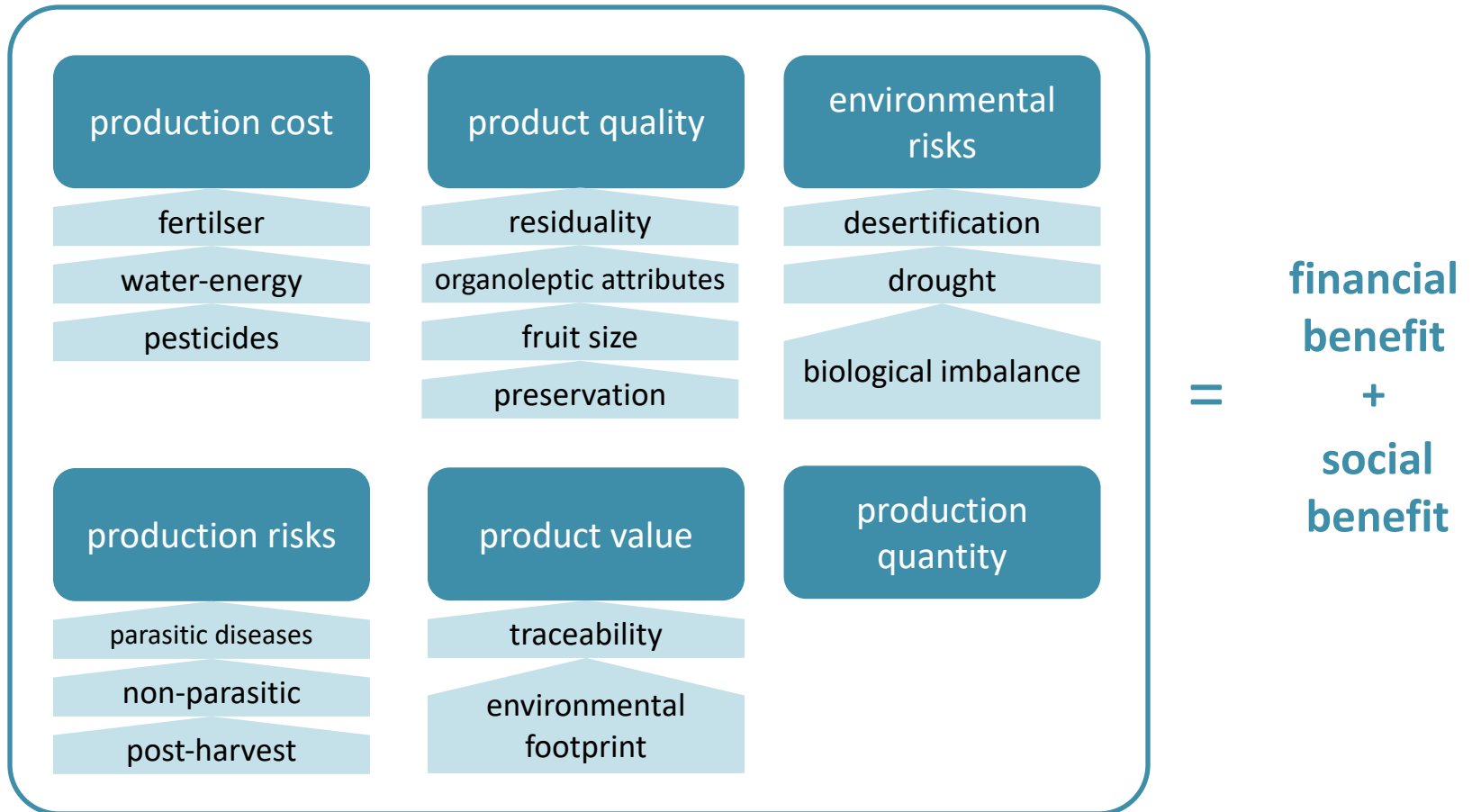
# how smart farming compares to organic farming?












- organic is not about optimization
- organic is about minimization of specific kinds of chemicals
- organic is a set of constraints in the decision making process
- smart farming is orthogonal to organic
- smart farming is not a one-off process like organic

# Benefits of smart farming services

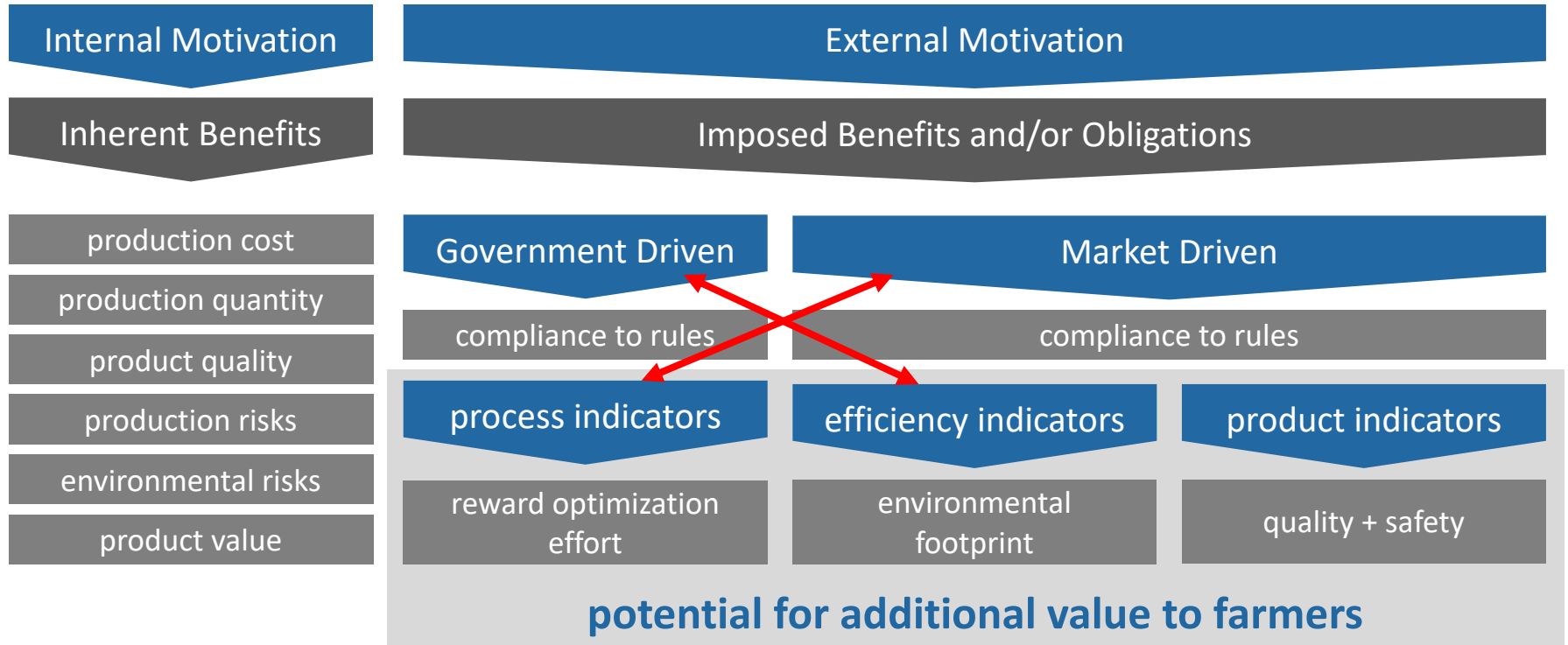
## For the producer and the producers' cooperatives



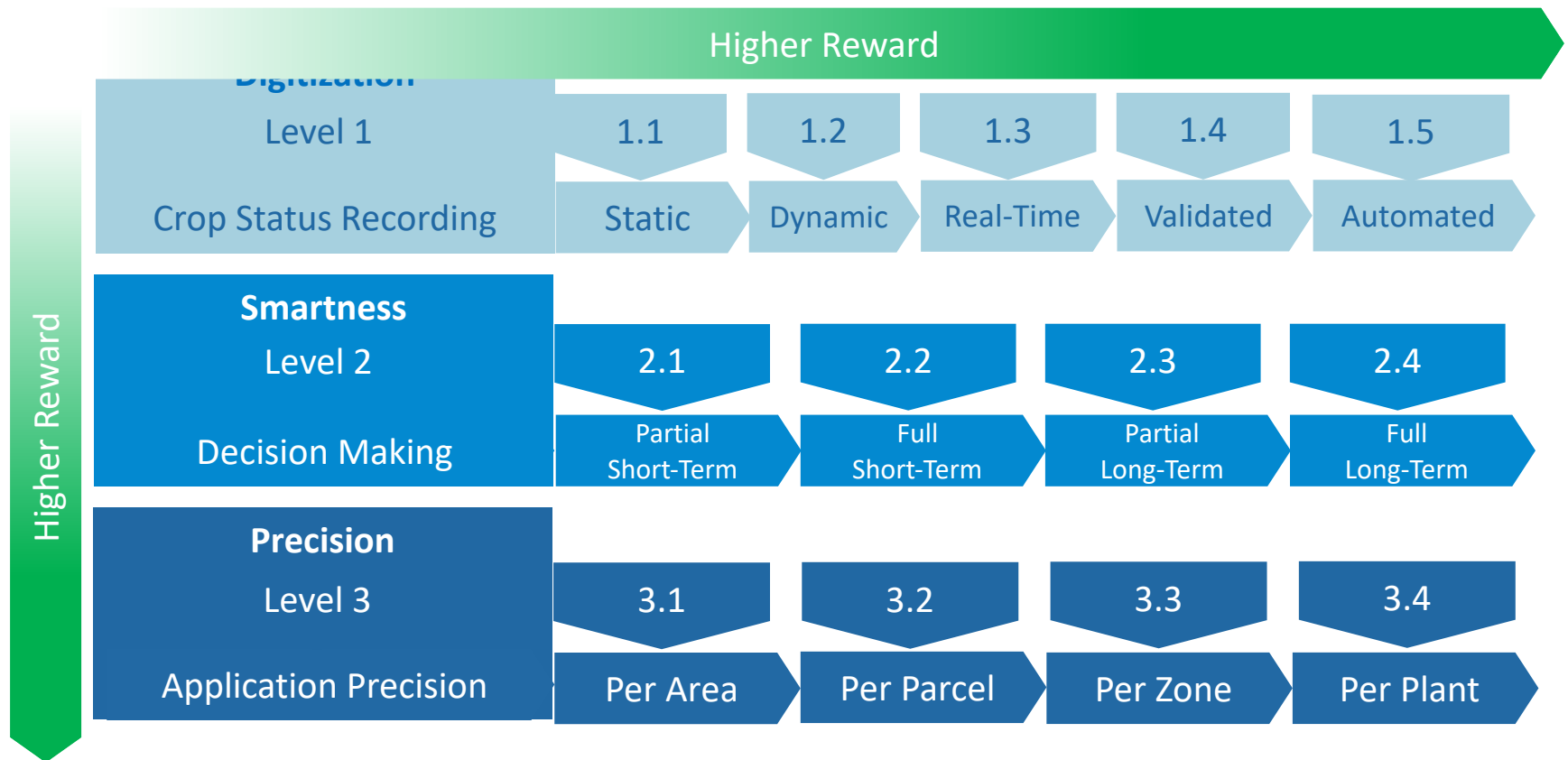
# financial performance benefits

Crop type	INPUT REDUCTION (%)			YIELD INCREASE (%)	BENEFIT INCREASE (%)	OTHER BENEFITS		TOTAL BENEFIT INCREASE (%)	SERVICE COST (%)
	Crop Protection	Irrigation	Fertilization			Risk Management	Quality Improvement		
Table Peaches 	11,22%	14,10%	65,42%	12,00%	29%	6	6	48%	3,00%
Almonds 	28,30%	31,70%	59,87%	12,00%	35%	1	2	40%	2,00%
Stewed Peaches 	11,68%	24,90%	37,45%	12,00%	26%	4	3	37%	2,50%
Table Grapes 	7,19%	42,70%	46,35%	8,00%	25%	6	6	41%	3,00%
Pistachios 	0,00%	24,60%	12,30%	12,00%	18%	1	2	22%	2,00%
Olives 	63,46%	33,67%	33,69%	8,00%	36%	2	3	43%	2,00%
Dry Beans 	3,10%	27,80%	29,59%	16,00%	26%	2	3	35%	1,50%
Potatoes 	9,05%	32,40%	14,67%	16,00%	26%	2	3	35%	1,50%
Cotton 	0,00%	45,70%	28,85%	18,00%	30%	2	3	39%	1,50%

# motivate farmers

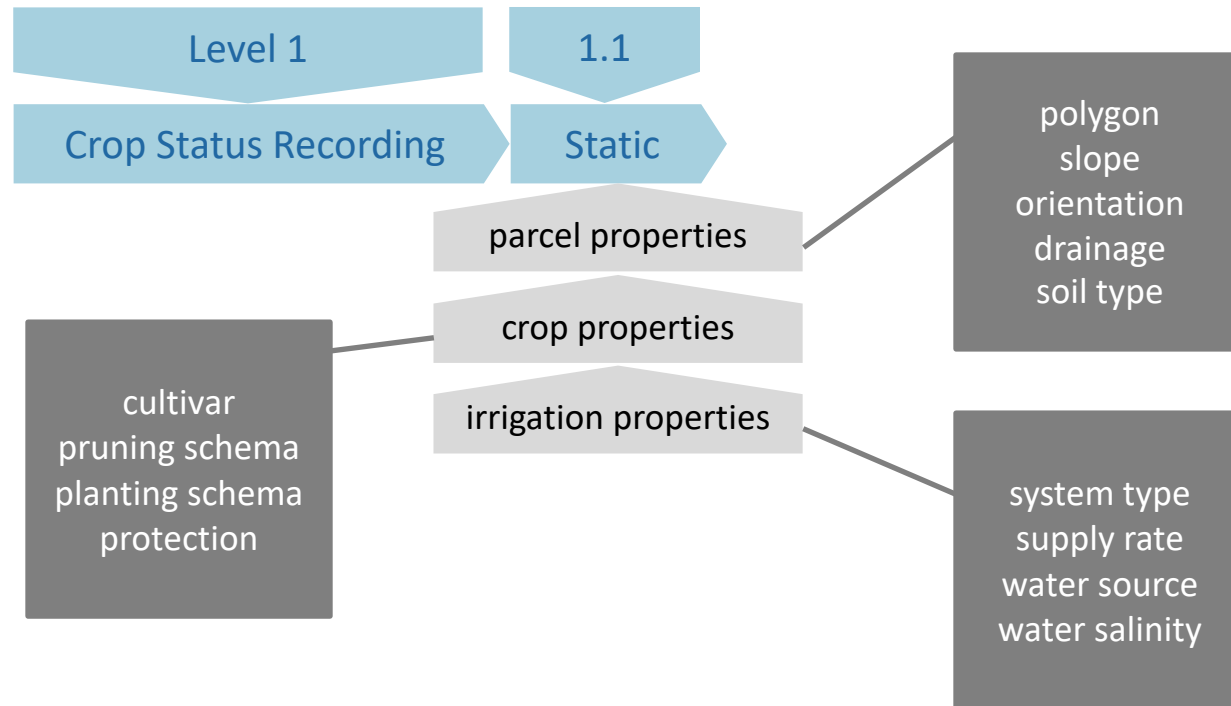


# optimization effort evaluation model

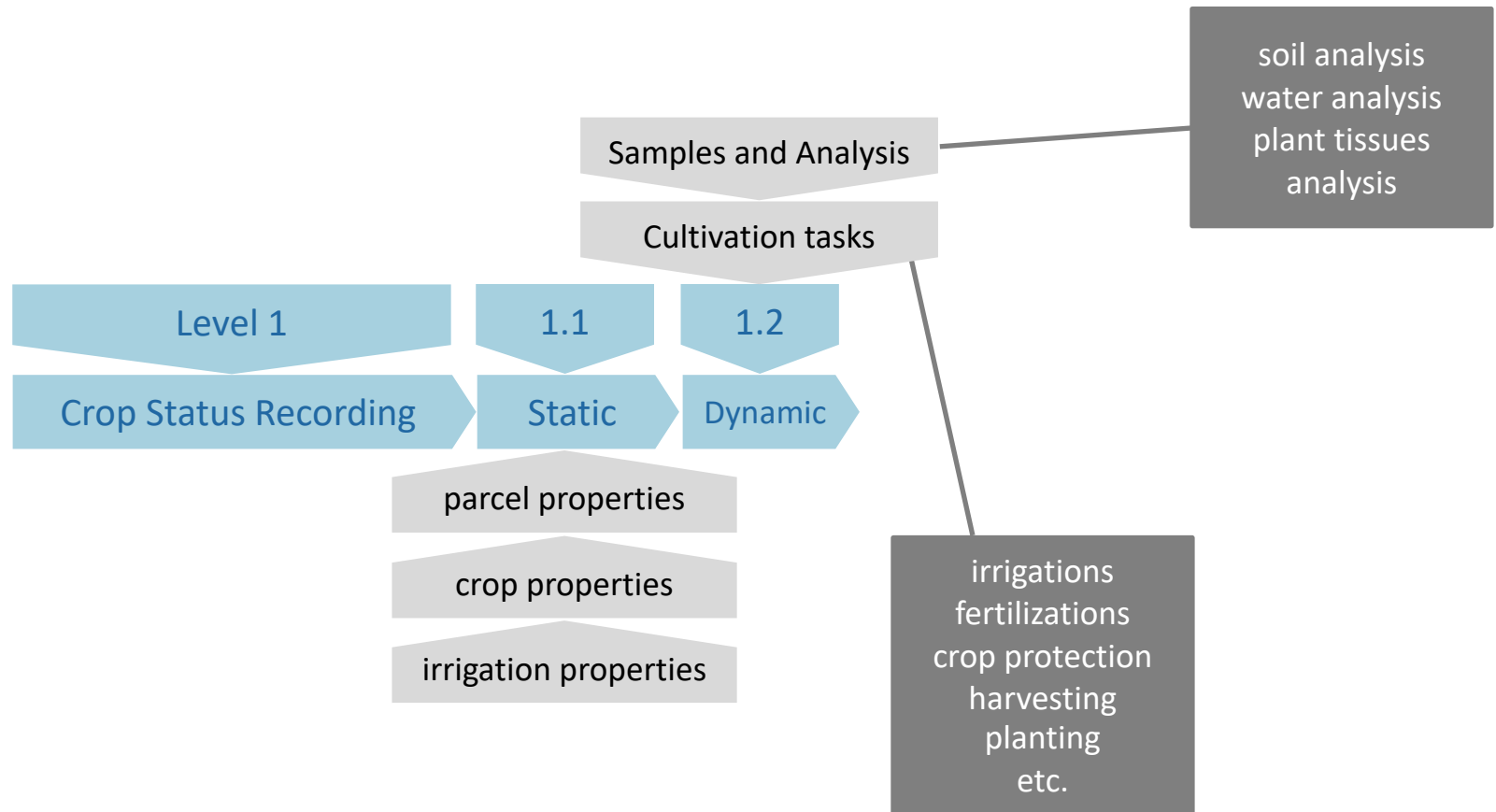




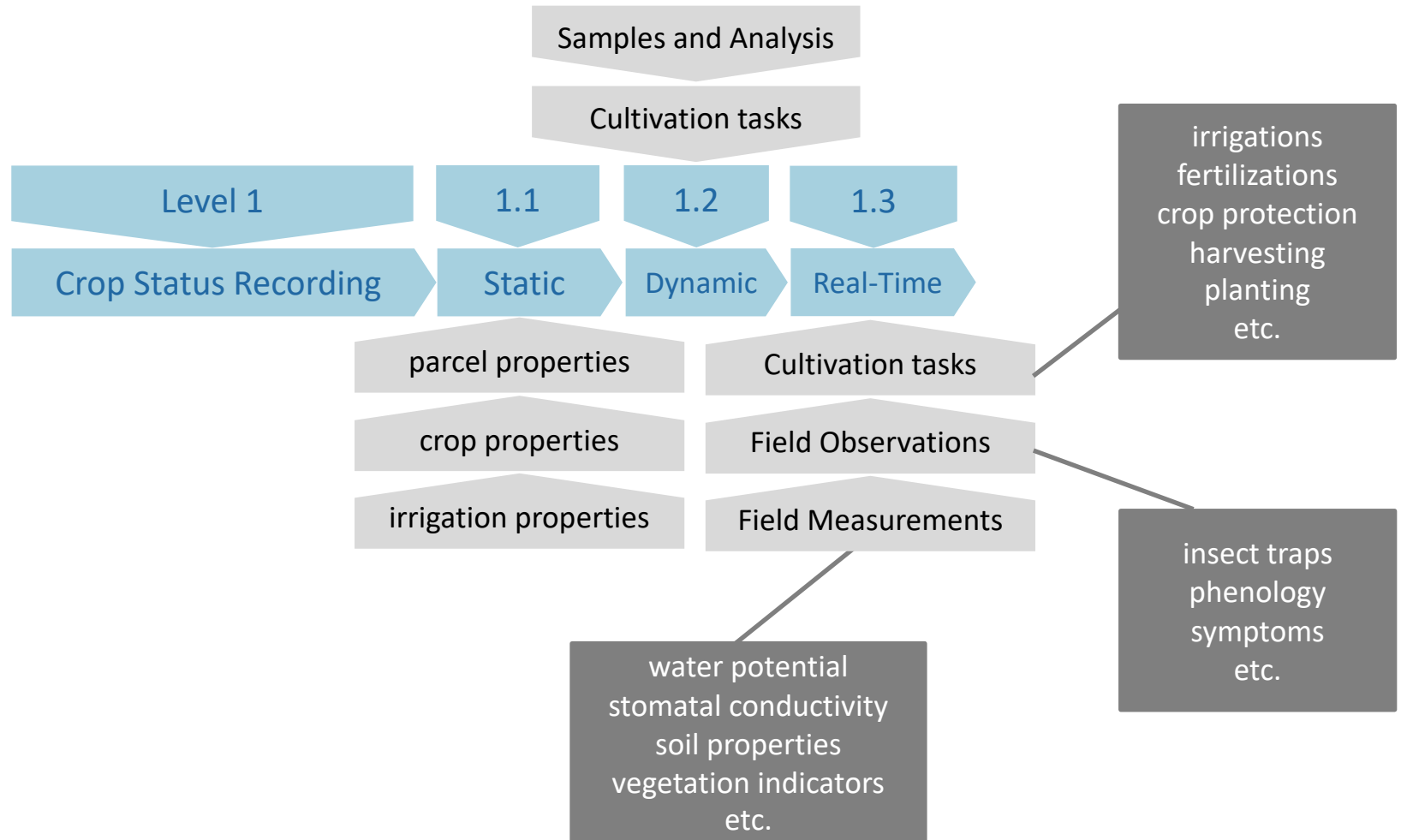
# optimization effort evaluation model



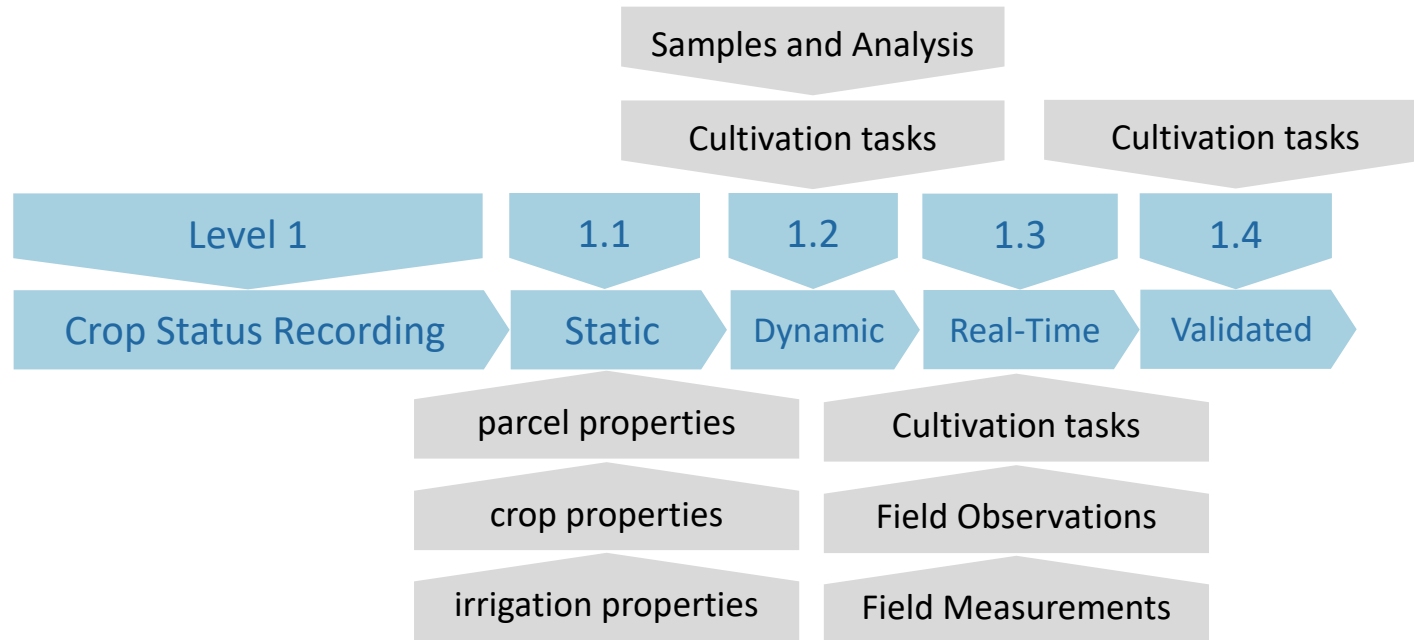
# optimization effort evaluation model



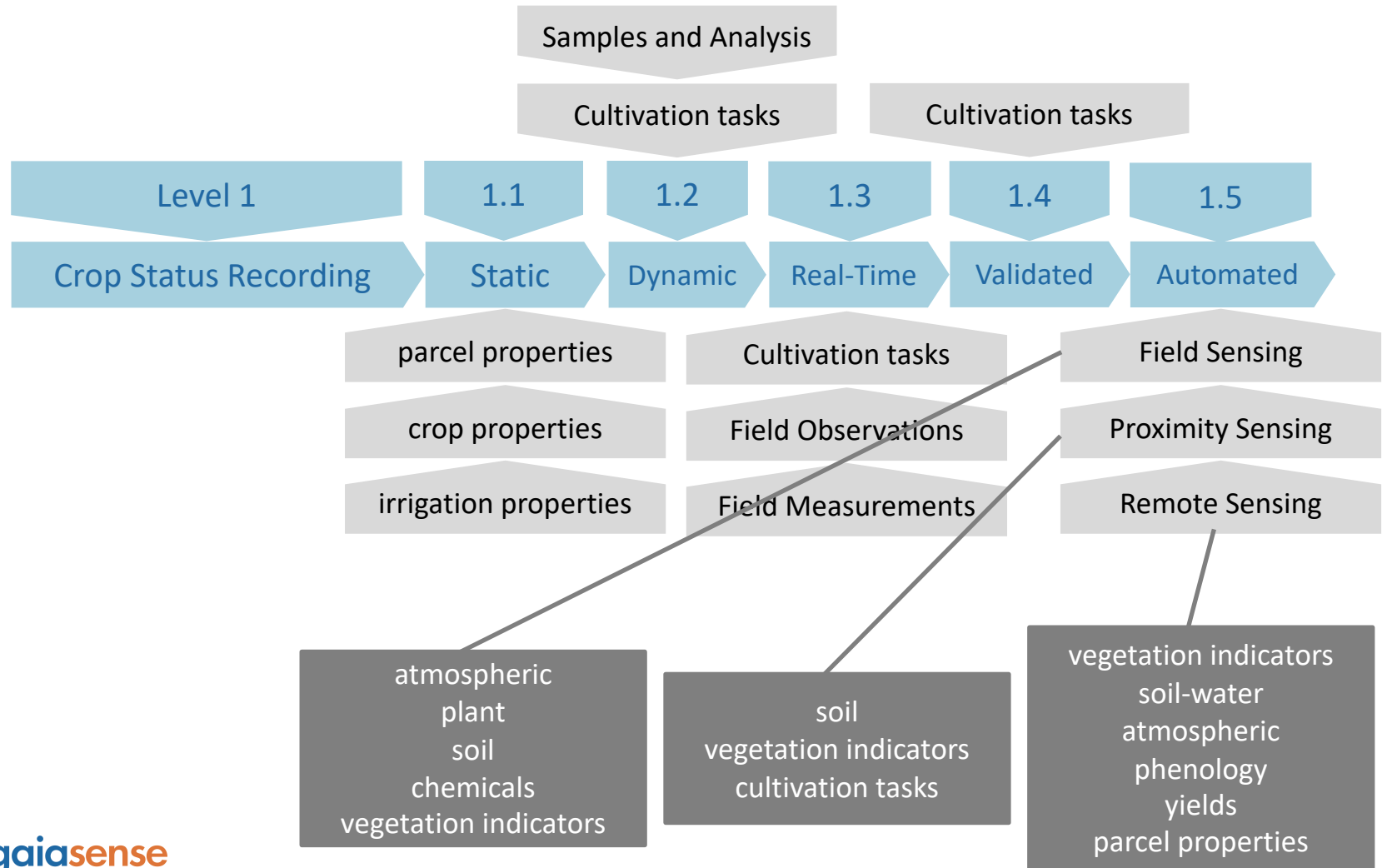
# optimization effort evaluation model



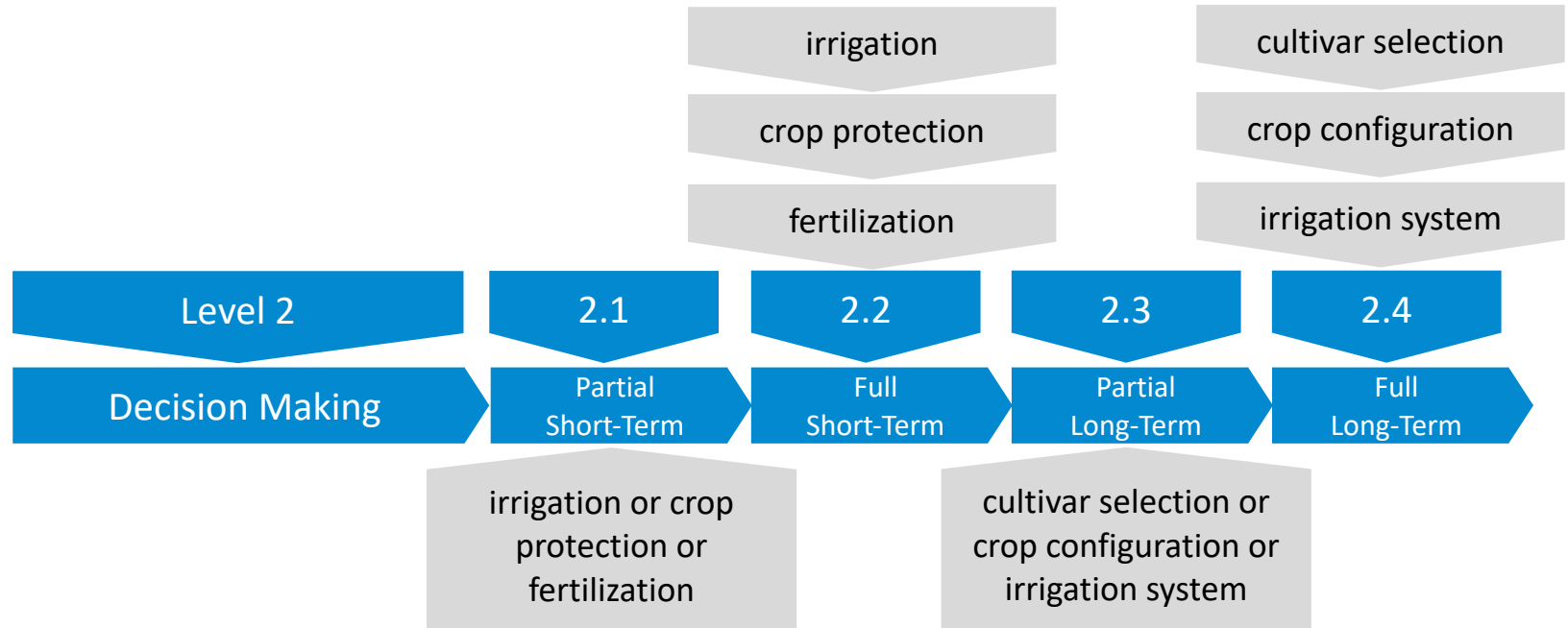
# optimization effort evaluation model



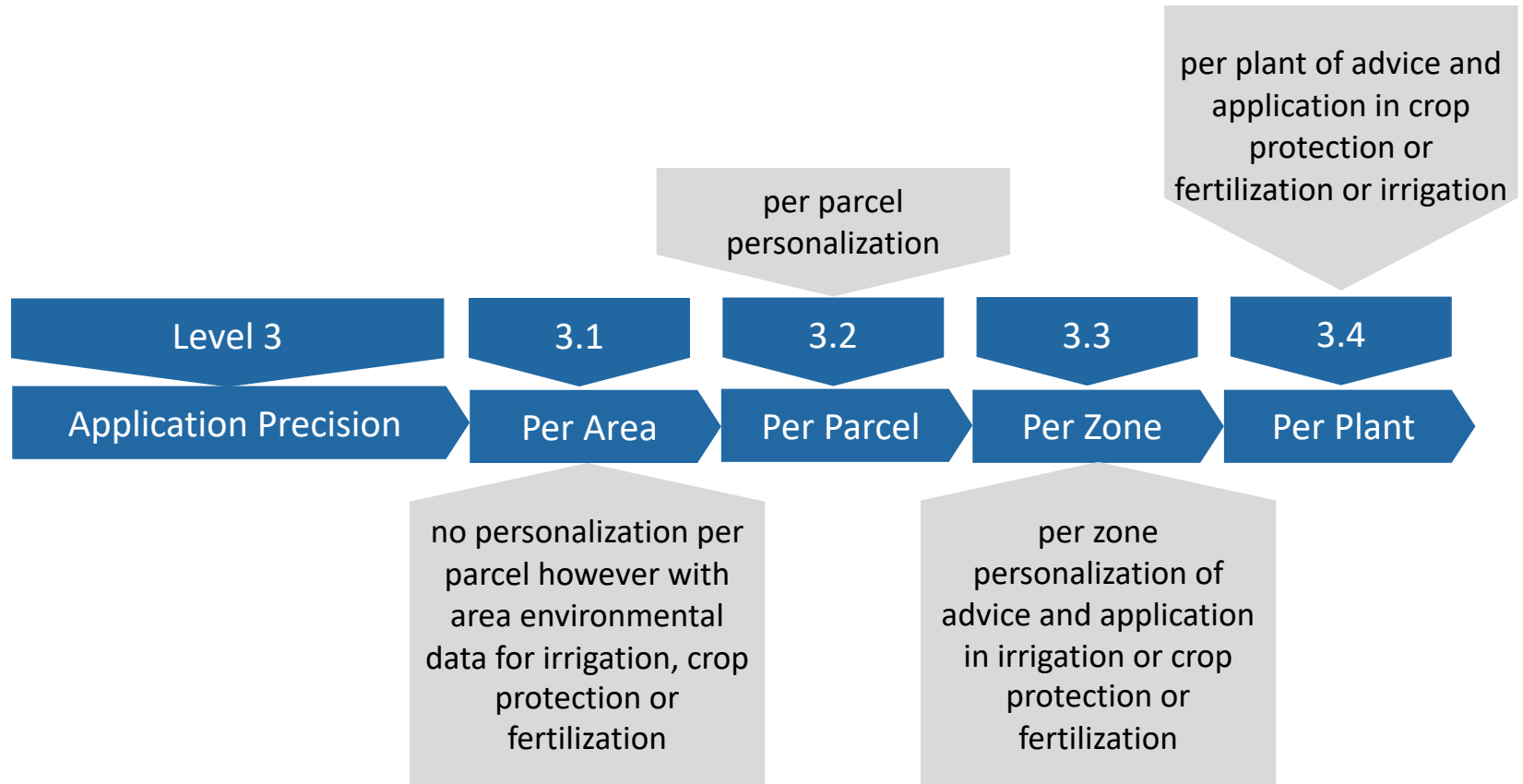
# optimization effort evaluation model



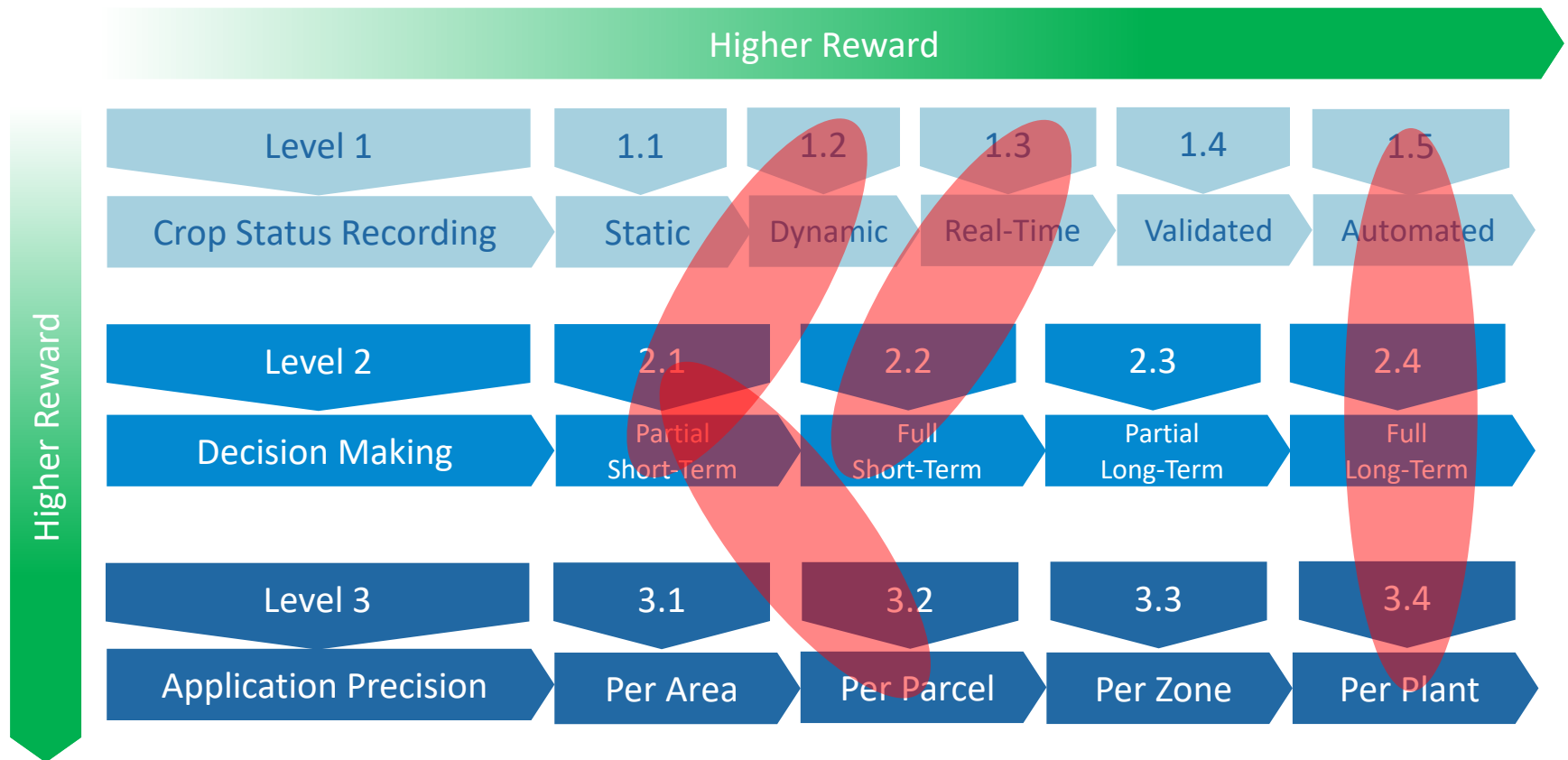
# optimization effort evaluation model



# optimization effort evaluation model



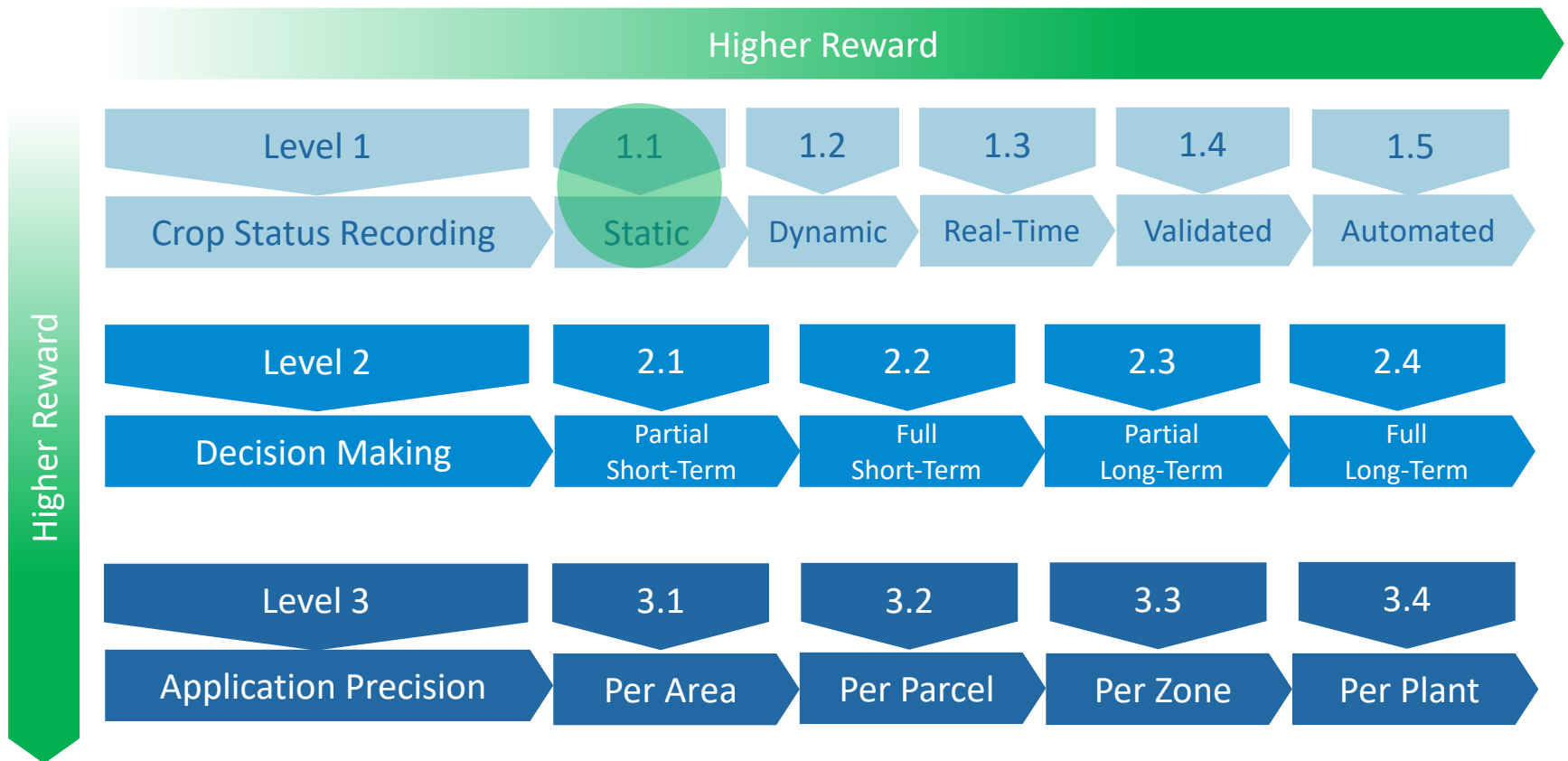
# optimization effort evaluation model





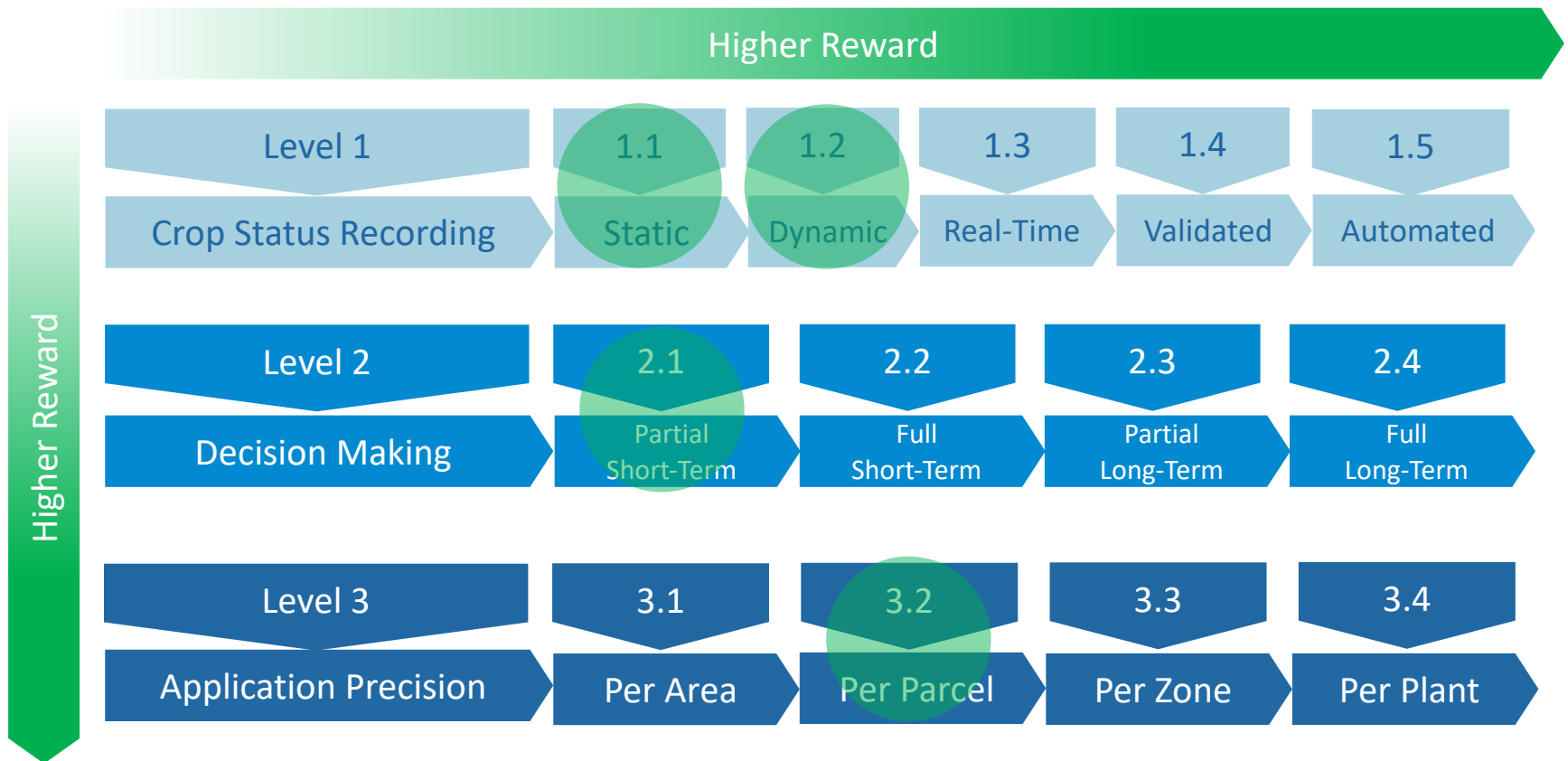
# optimization effort evaluation model

## certification example : IACS



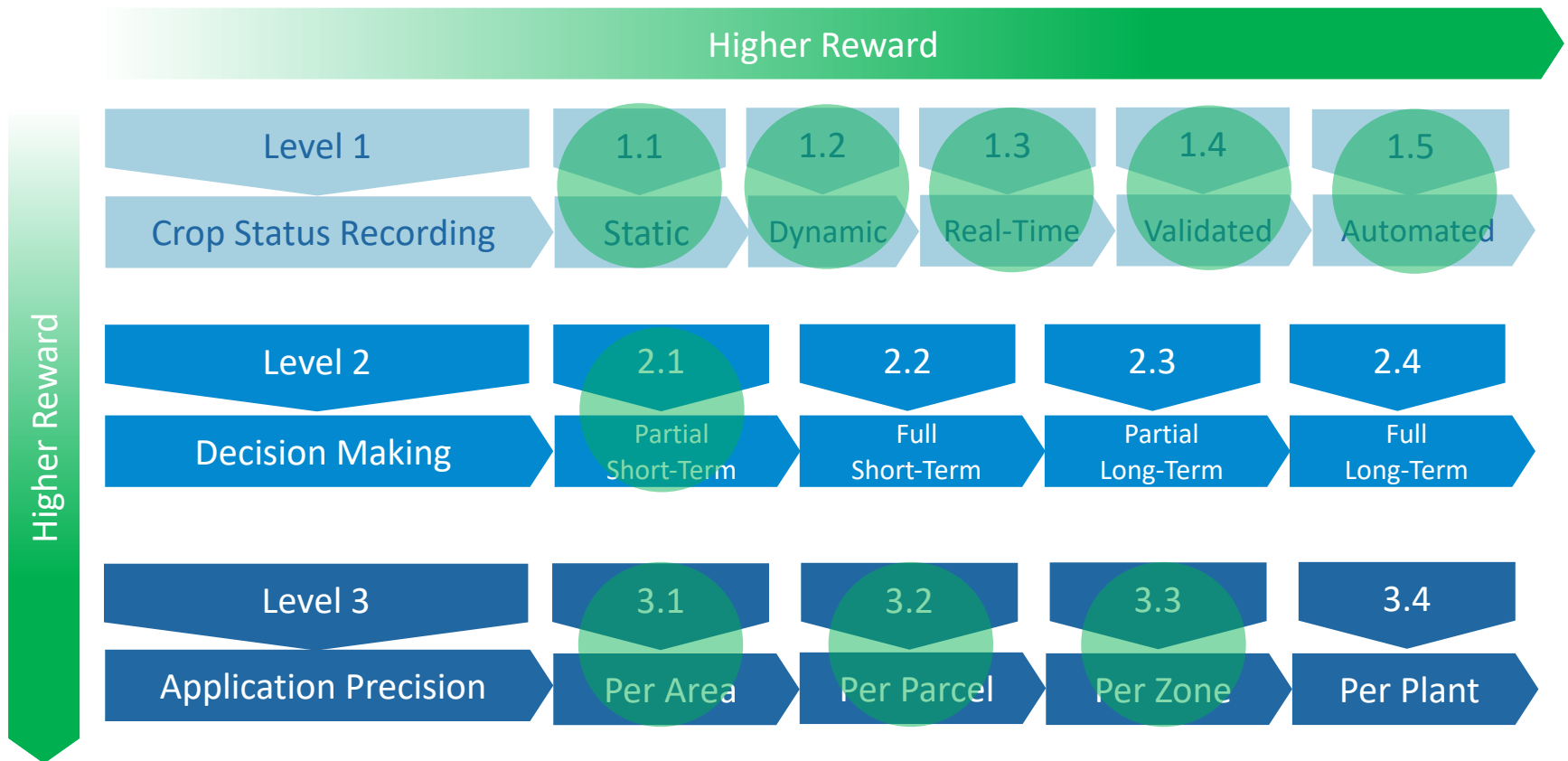
# optimization effort evaluation model

## certification example : FaST tool



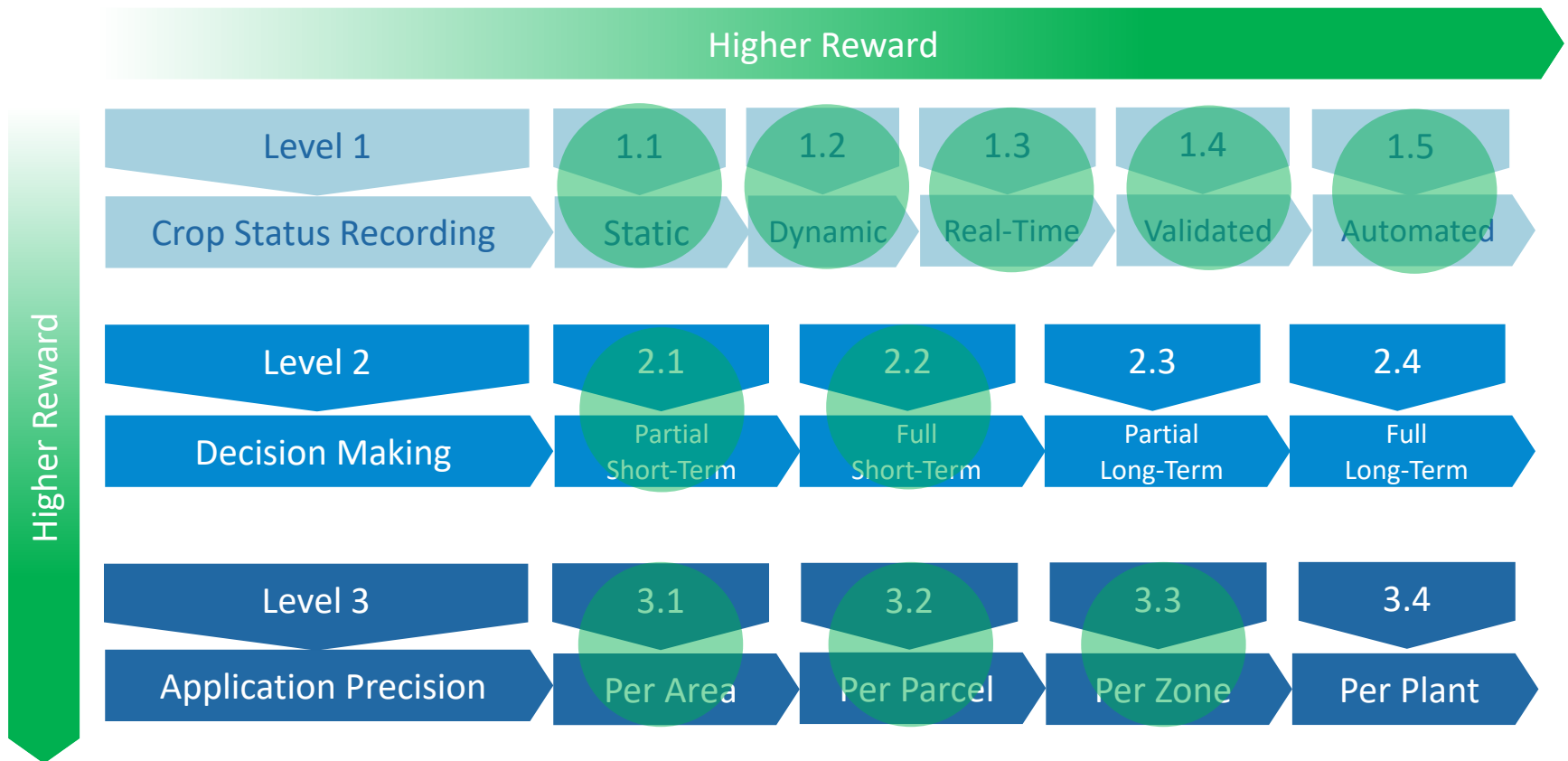
# optimization effort evaluation model

## certification example : precision farming



# optimization effort evaluation model

## certification example : gaiasense



# optimization effort evaluation model

work needed to be done

rewarding schema

certification process

verification mechanism

data sharing



**gaiasense**

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