

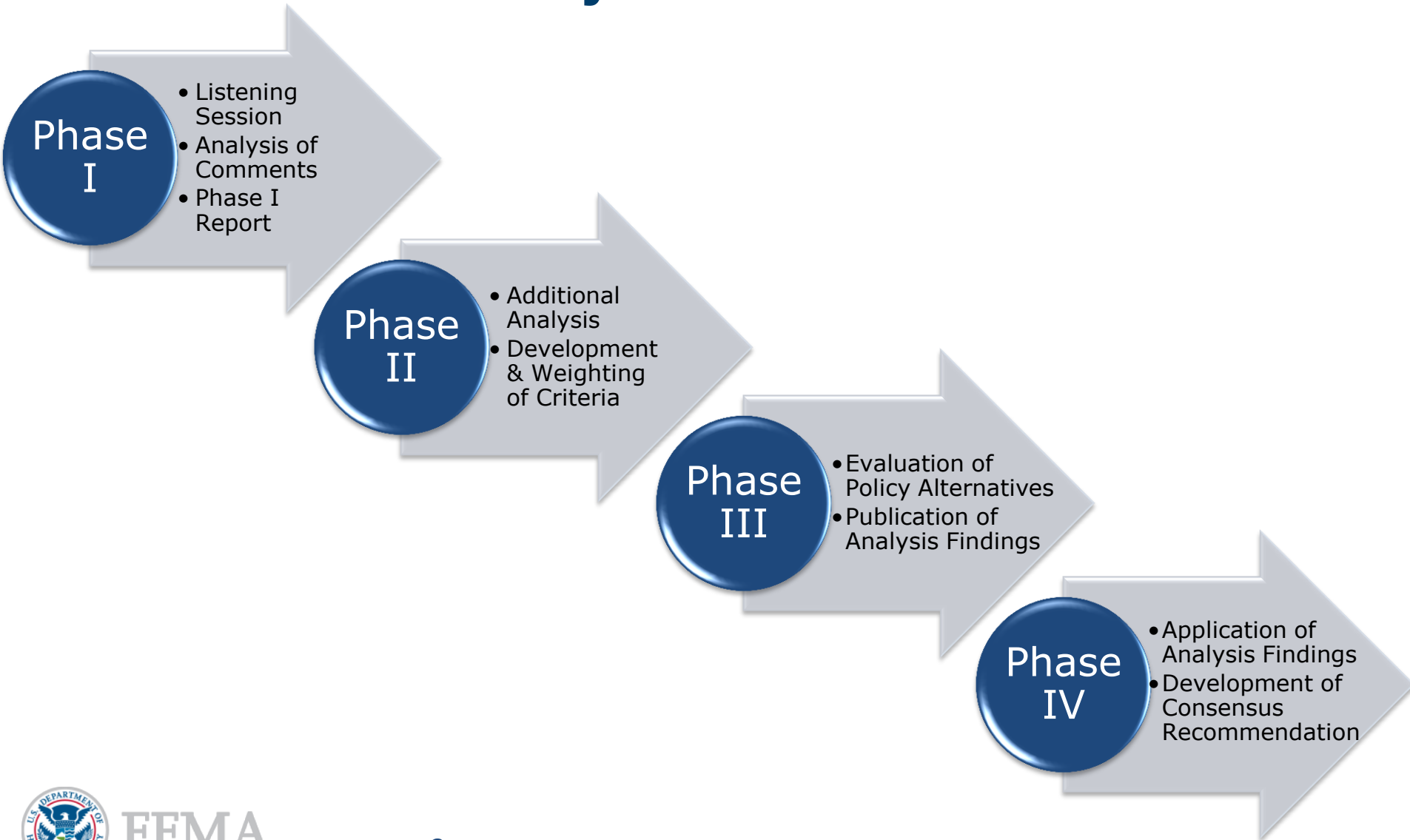
FEMA-Led NFIP Reform Efforts

NFIP REFORM OVERVIEW



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NFIP Public Policy Reform Process



The Weighted Criteria

Criteria Weights Analysis

Responses were classified into one of six different stakeholder groups.

Final criteria weights were generated by averaging equally across stakeholder groups.

| Criterion | FEMA | Other Agencies | State | Local | Non-Profit | Private Sector | Integrated Weights |
|---|-------|----------------|-------|-------|------------|----------------|--------------------|
| Cost of flood is borne by individuals | 12.6% | 8.0% | 11.9% | 7.8% | 10.7% | 9.3% | 10.1% |
| Individuals incur costs of increased risk gradually | 9.0% | 9.7% | 10.6% | 7.9% | 10.2% | 13.7% | 10.2% |
| Assistance is provided to those who cannot afford the cost of the flood | 5.8% | 3.1% | 4.3% | 7.9% | 7.9% | 8.3% | 6.2% |
| Minimize exposure to flood hazards | 25.5% | 25.6% | 27.3% | 23.3% | 23.7% | 21.0% | 24.4% |
| Maximize natural and beneficial functions of the floodplain | 21.7% | 17.4% | 21.0% | 15.9% | 17.5% | 15.6% | 18.2% |
| Efficiency – Maximize the societal benefit/cost ratio | 10.7% | 21.7% | 11.8% | 13.5% | 11.6% | 14.9% | 14.1% |
| Administrative feasibility | 8.8% | 7.0% | 7.9% | 13.2% | 9.1% | 10.7% | 9.4% |
| Political acceptability | 5.9% | 7.4% | 5.2% | 10.4% | 9.3% | 6.5% | 7.5% |

Note: Percentages may not add to 100% due to rounding. Analysis only includes surveys satisfying a consistency threshold of 0.20, indicating that the degree of internal inconsistency of the survey is less than 20% of the internal inconsistency of a survey in which responses are chosen at random.

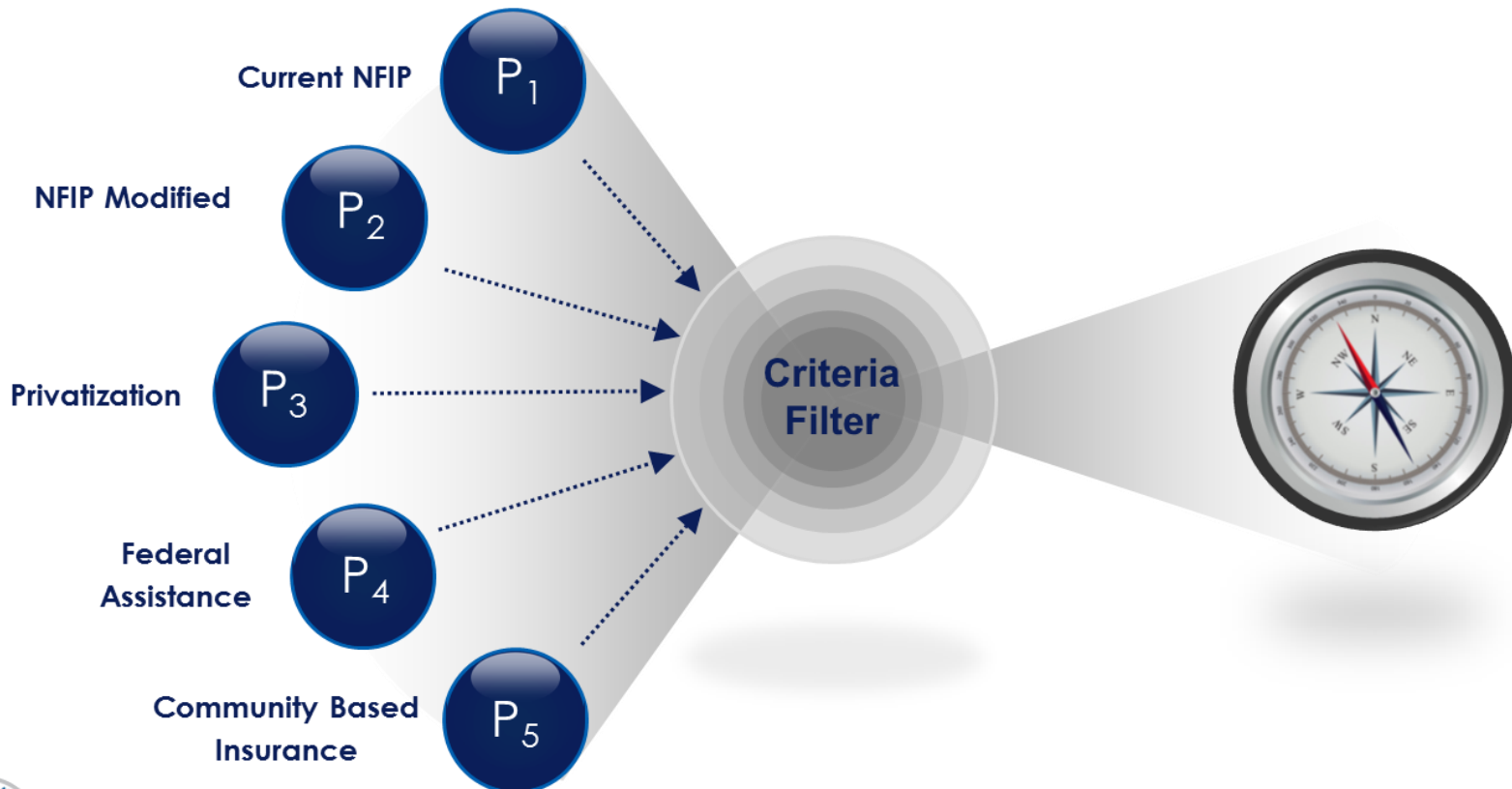


Developing the Policy Alternatives

IDENTIFY POLICY ALTERNATIVES

EVALUATE POLICY ALTERNATIVES

INFORM LONG-TERM POLICY DIRECTION



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Phase III – Qualitative and Quantitative Analysis

Resources for the Future
 University of Georgia RAND Corporation
 University of Minnesota The Wharton School

QUALITATIVE EVALUATION

- **Scope:** All criteria
- **Participants:** Academics & other experts
- **Format:** Pairwise comparison survey.
- **Method:** Convert pairwise comparisons into standardized scores for each policy using the Analytic Hierarchy Process (AHP)
- **Output:** An Expert Panel Scorecard that includes a composite score for each policy across all eight criteria.



QUANTITATIVE EVALUATION

- **Scope:** Subset of criteria amenable to quantification
- **Participants:** Keybridge Research; NFIP Reform Working Group
- **Format:** Criteria-specific analysis to evaluate the relative impact of each policy option on key metrics.
- **Method:** Partial equilibrium modeling using a variety of publicly and privately available datasets.
- **Output:** A Quantitative Evaluation Scorecard that includes a composite score for each policy across criteria examined.

Criteria Weights

| Criteria | Current NFIP | Modified NFIP |
|--|--------------|---------------|
| Cost of Flood is Borne by Individuals | 5 | 2 |
| Individuals Incur Costs Gradually | 2 | 2 |
| Assistance Provided to Those Who Cannot Afford the Cost of Flood | 5 | 1 |
| Minimize Exposure to Flood Hazards | 4 | 3 |
| Maximize Natural & Beneficial Functions of the Floodplain | 4 | 2 |
| Efficiency | 4 | 2 |
| Administrative Feasibility | 2 | 1 |
| Political Acceptability | 3 | 2 |

| Criteria | Current NFIP | NFIP Modified | Privatization | Federal Assistance | Community Based |
|--|--------------|---------------|---------------|--------------------|-----------------|
| Cost of Flood is Borne by Individuals | | | | | |
| Individuals Incur Costs Gradually | | | | | |
| Assistance Provided to Those Who Cannot Afford the Cost of Flood | | | | | |
| Minimize Exposure to Flood Hazards | | | | | |



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and this is what came out the other side...

1 Reform is Needed

- The Current NFIP has several shortcomings:
 - Policies that are subsidized or discounted
 - Low penetration in and out of the flood zone
 - Inadequate mandatory purchase compliance
 - Absence of a means-based assistance

2 No One Option Emerges as Best and "NFIP Modified" Offers a Strong Platform for Reform

- Among the "pure" policy options, no one option clearly emerges as the best alternative to the status quo as a long term solution.
- Each policy option has a unique mix of strengths and weaknesses.
- NFIP Modified offers the strongest platform for Reform in the short and medium term and are already influencing current legislative discussions.
- However, this option shares shortcomings of the current framework:
 - Low participation
 - Less-than full risk rates
 - Insufficient incentives to mitigate and discourage new development in the floodplain.

3 Analysis Points to Hybrid Solution

- Strong elements from each alternative should be incorporated by decision-makers to form a hybrid option.
- A hybrid policy serves as an effective vehicle for gradually introducing, testing, and scaling up models that appear promising in the long term without compromising critical program goals in the short term.



PHASE IV: REFORM RECOMMENDATIONS

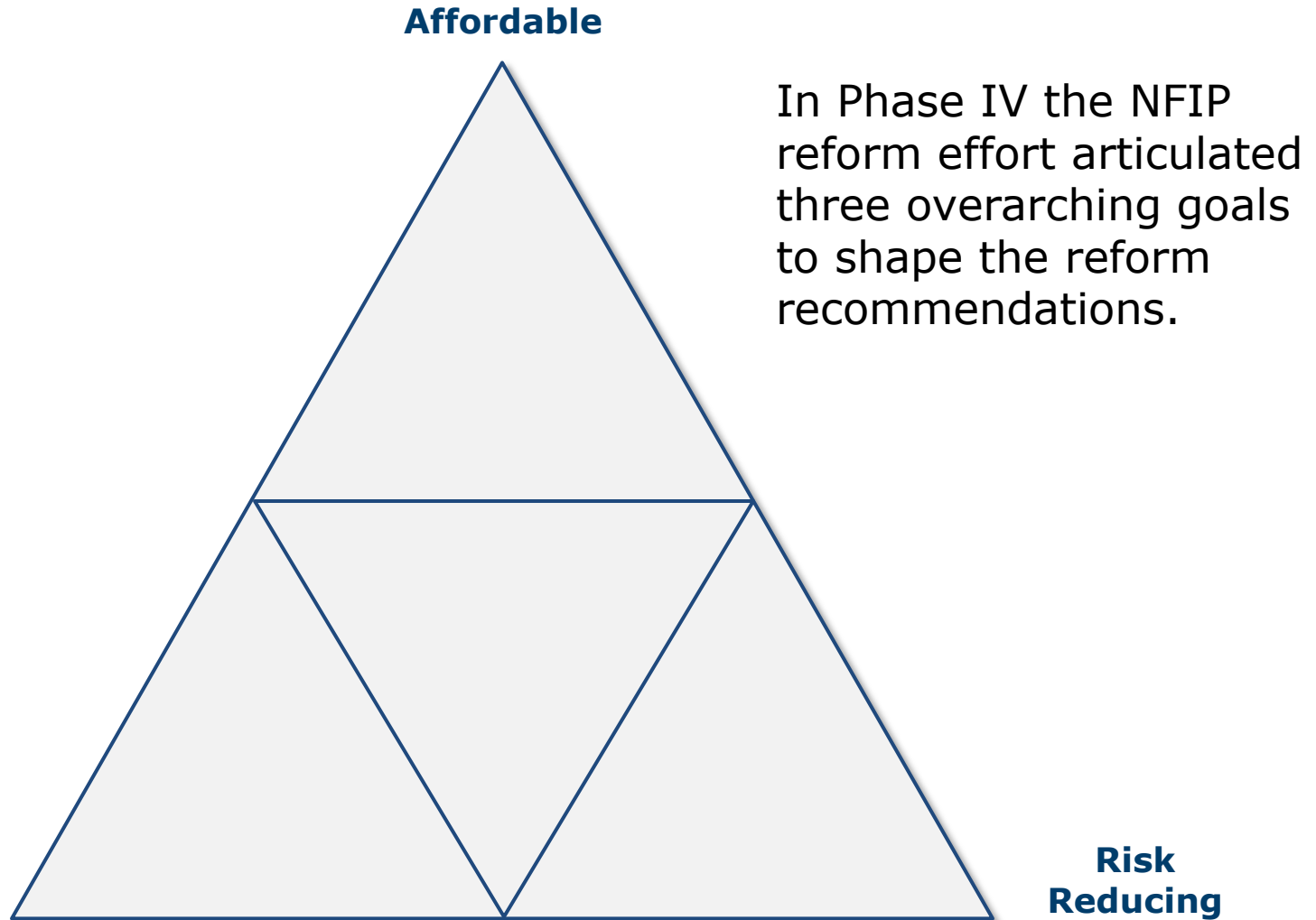


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Phase IV: Reform Recommendations



The Goals of Reform



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The Goals of Reform

Affordable

In Phase IV the NFIP reform effort articulated three overarching goals to shape the reform recommendations.

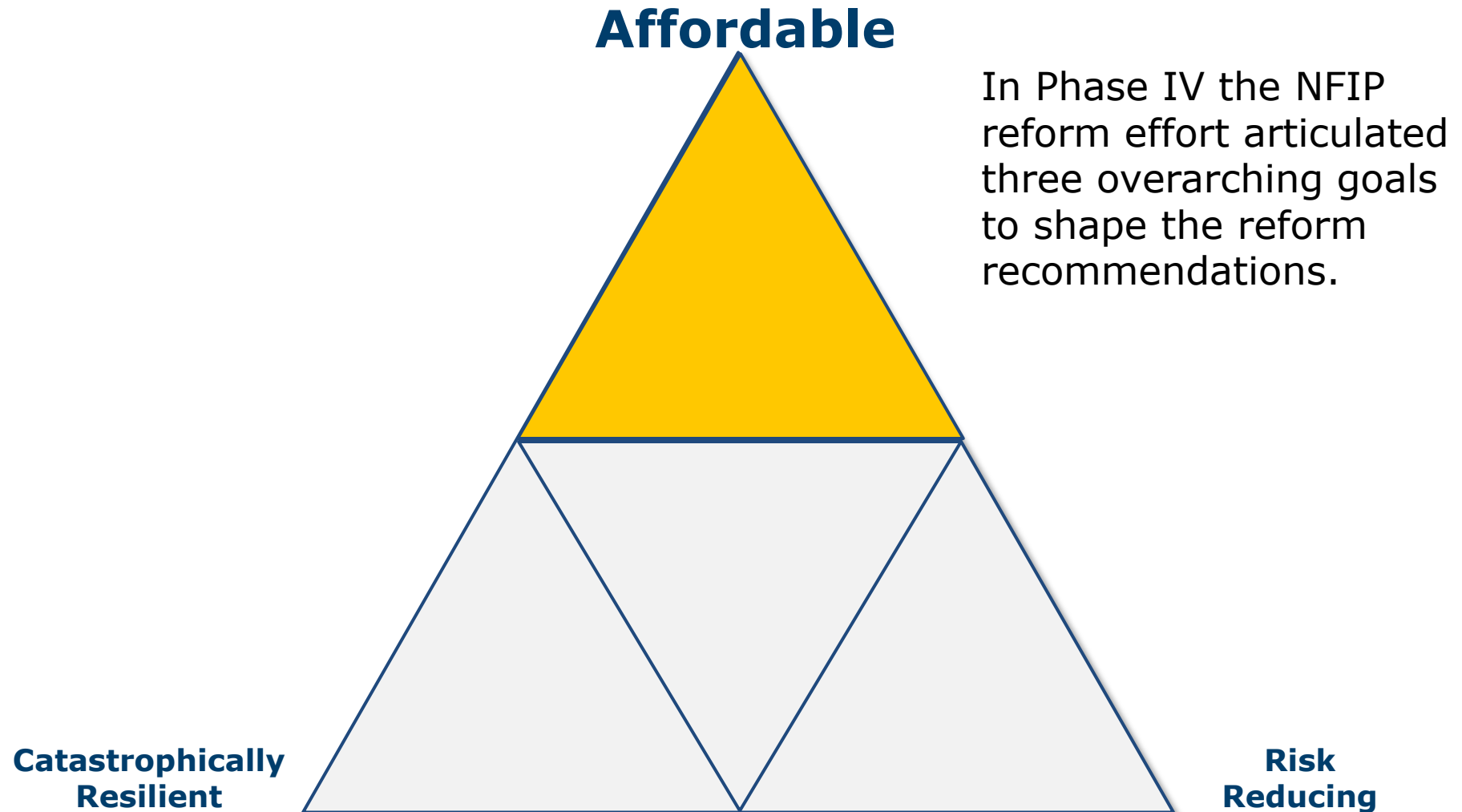
**Catastrophically
Resilient**

**Risk
Reducing**



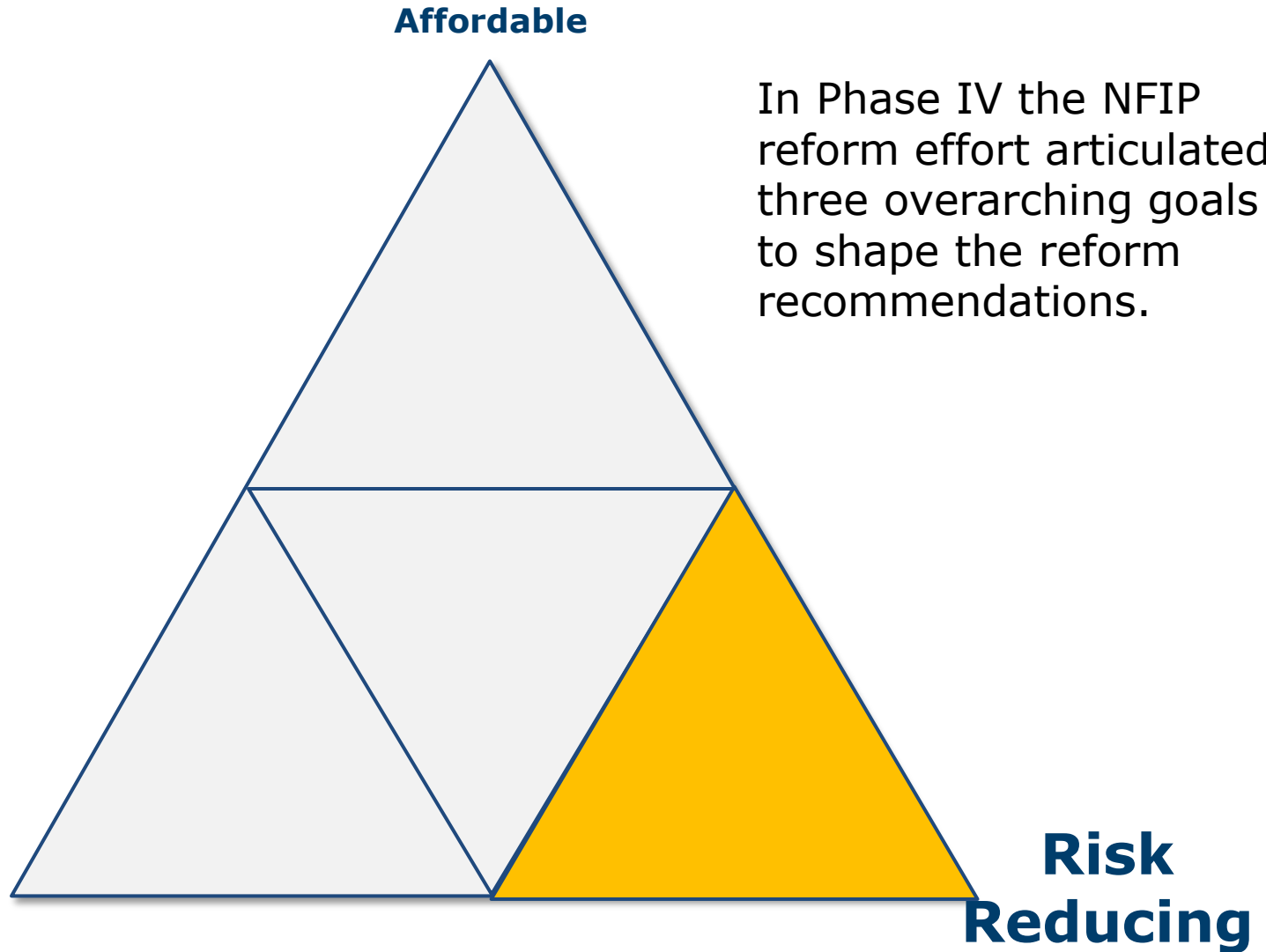
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The Goals of Reform



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The Goals of Reform

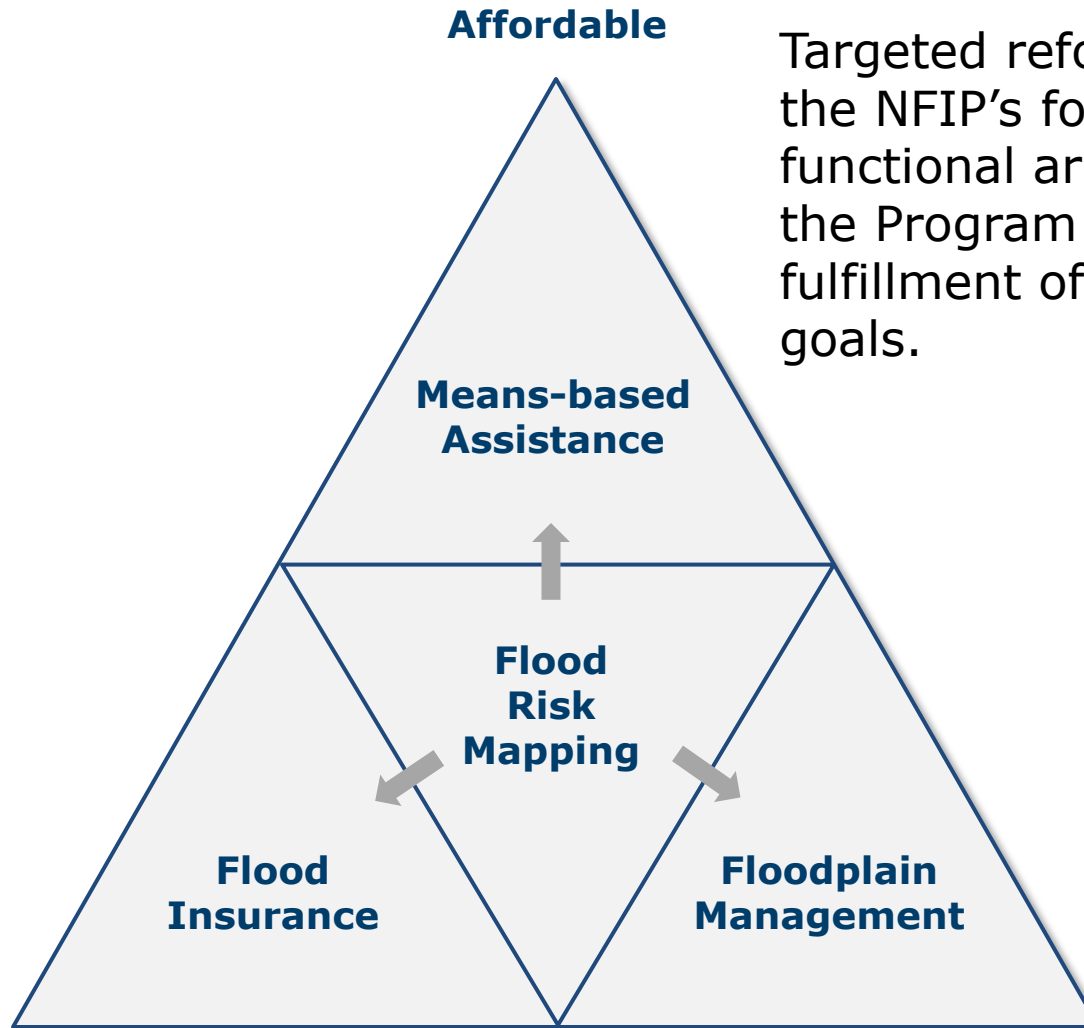


Catastrophically Resilient



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Targeted Reforms



Targeted reforms in each of the NFIP's four interrelated functional areas will move the Program toward the fulfillment of the three goals.

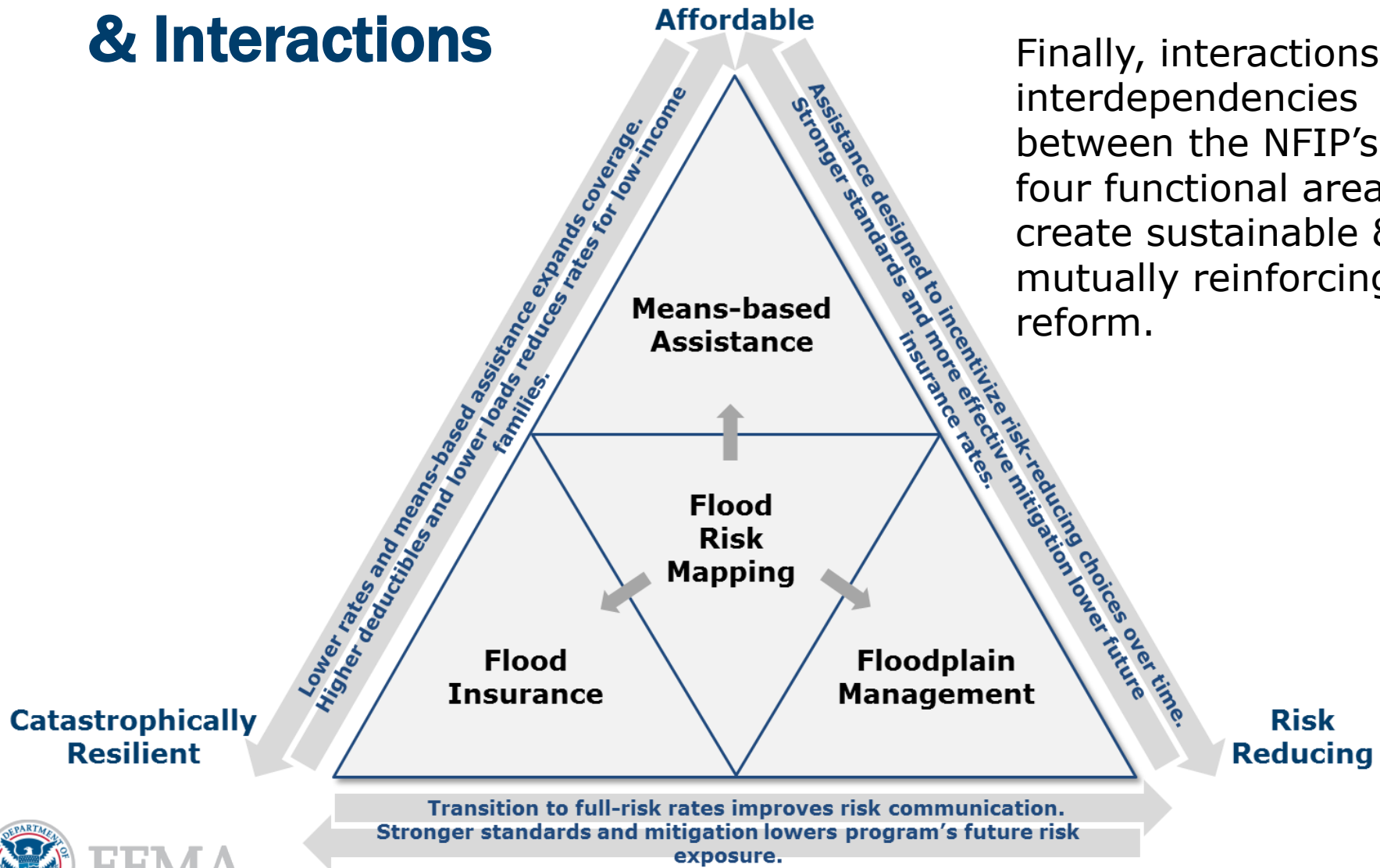
**Catastrophically
Resilient**

**Risk
Reducing**



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Consensus Recommendation: Policy Principles & Interactions



Finally, interactions & interdependencies between the NFIP's four functional areas create sustainable & mutually reinforcing reform.



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Consensus Recommendation Report

- The Reform Working Group recommendations will be formalized in a report
- The solution will be used to implement internal policy changes in the NFIP and help support future legislation

