Anticipating migration:
Which models and approaches exist?

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Goals of my talk

➢ Policy-focused introduction to the growing field of migration forecasts

➢ Overview of approaches

➢ Understanding of relative strengths & weaknesses

➢ Setting the scene for following talks

| 20 min 👤 | 5 min ?? |

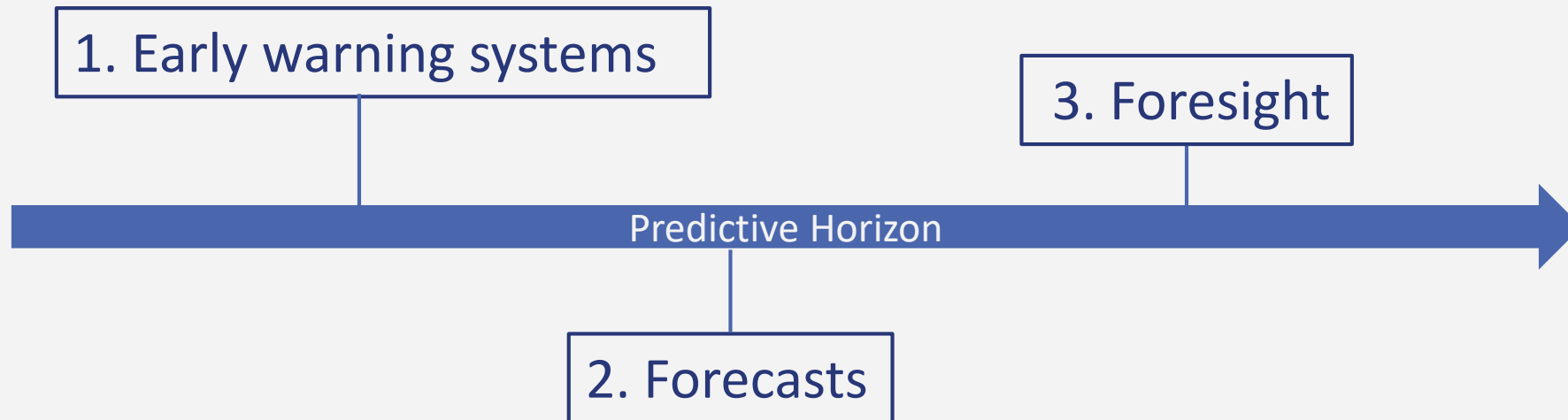# Interest in future migration is growing...

Number of forecasts (blue) and scenarios (yellow) published per year:

Forecasts   Scenarios
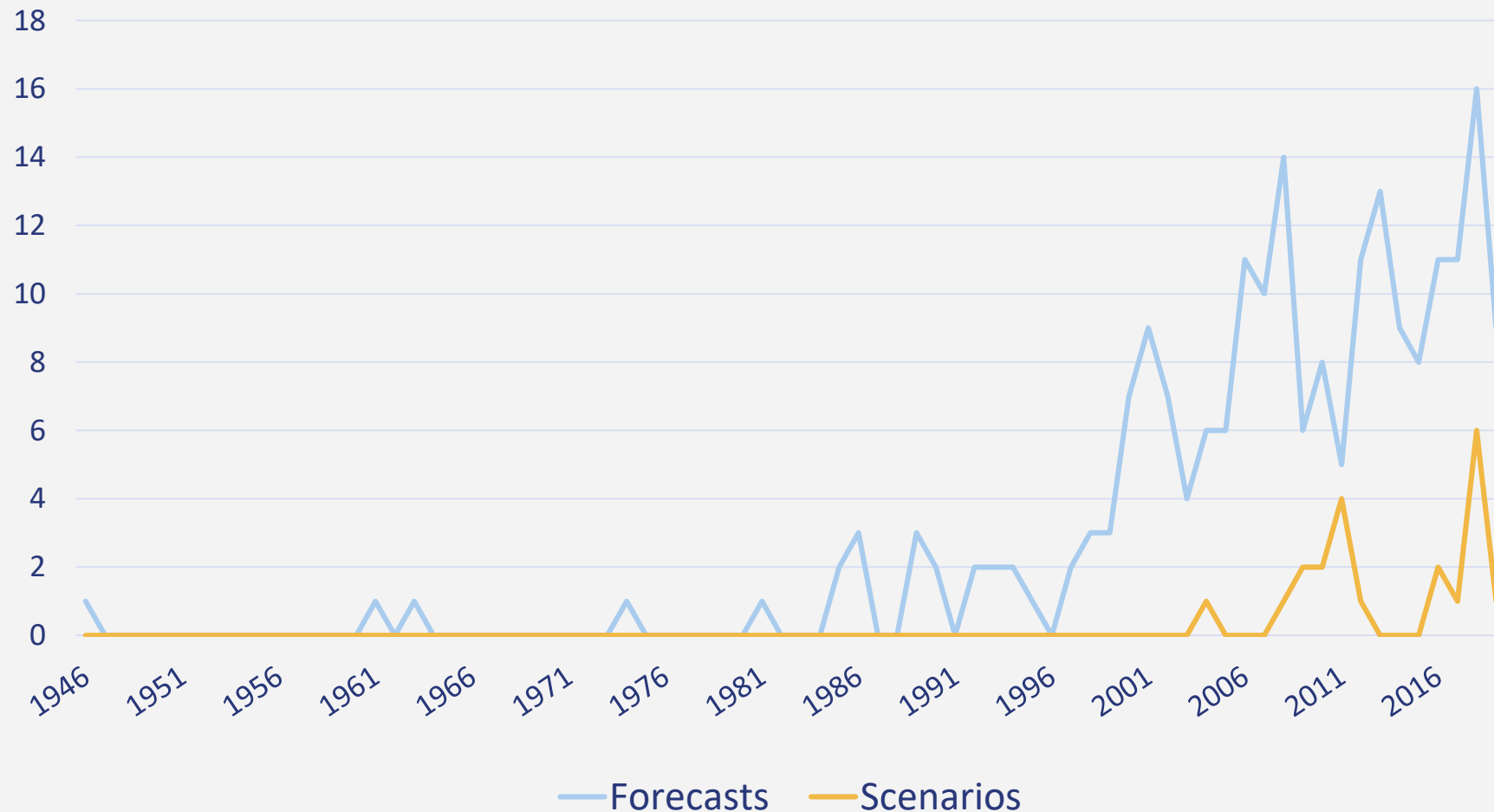
Source: GMDAC and NIDI (2020)

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Three groups of approaches

There are fundamental differences between approaches...

➢ How do they conceptualize migration?

➢ What time frames are they looking at?

➢ Which data are required?

➢ How do they treat uncertainty? (see talk by Jakub Bijak)

➢ Who is involved in their production?

1. Early warning systems

"A structured migration management mechanism is necessary, with real-time monitoring [and] *early warning."* The EU should be *"moving from a reactive mode to one based on preparedness and anticipation."*

(Source: EC New Pact on Migration and Asylum, 23 September 2020)

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1. Early warning systems

- Short-term

- "Now-casting" (see talk by André Gröger)

- Qualitative/quantitative (+ new data sources)

- Focus on humanitarian migration

- Operational planning + allocation of resources

- Relatively high accuracy
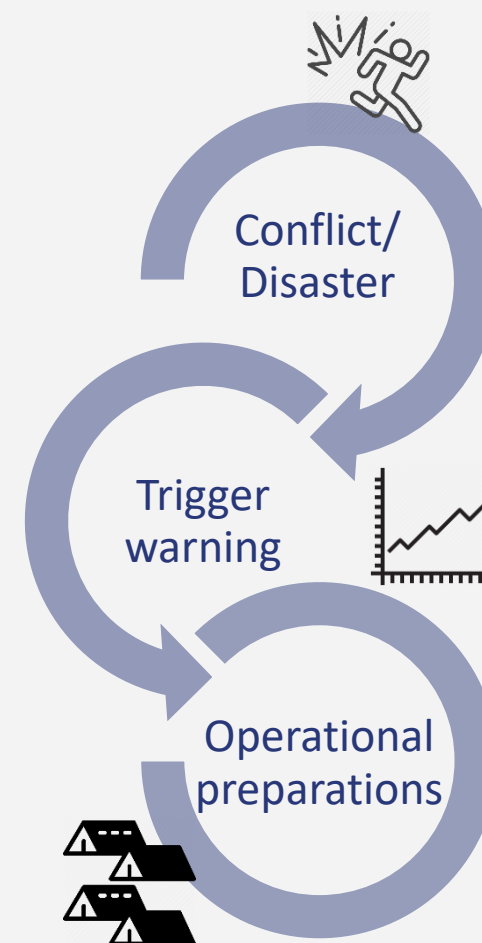
Conflict/ Disaster

Trigger warning

Operational preparations

2. Statistical model-based forecasts

➤ Mid-term

➤ Econometric regressions:

- Use of 'explanatory' factors + causal migration theories

➤ Time-series extrapolations:

- Use of historic (time-series) data
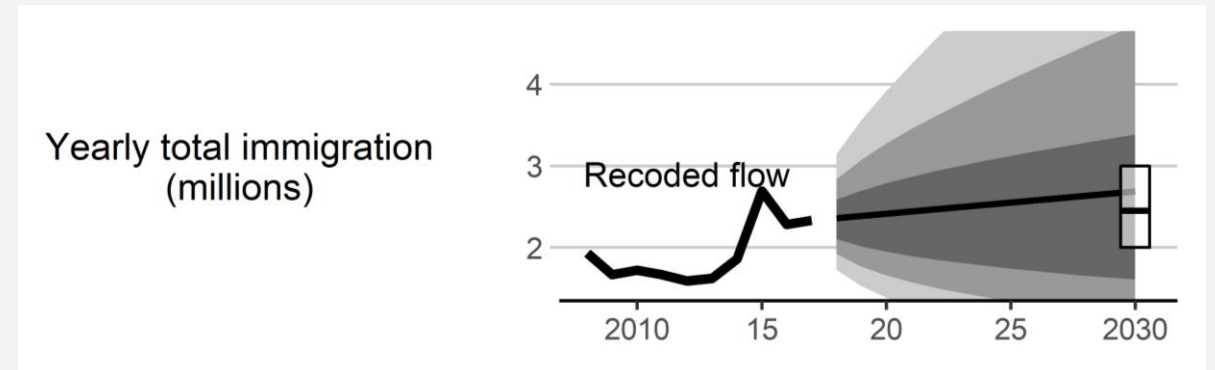
Source: Sohst, R., Tjaden, J. and Acostamadiedo, E. (forthcoming)

3. Expert- and survey-based forecasts

➢ Migration intention survey:

- Survey about their desire/plans/preparations to emigrate

- Widespread availability and comparability

➢ Delphi expert survey:

- Survey of experts to collect migration estimates

- Complements statistical forecasts + adresses scarce data or volatile flows

4. Foresight: scenario-building

➢ Long-term

➢ Based on group work (experts, policymakers, migrants)

➢ Systematic mapping of contextual factors

➢ "What-if" scenarios + narrative output

➢ Presenting alternative futures

➢ Hightlighting complexities and uncertainty

4. Example from a scenario workshop
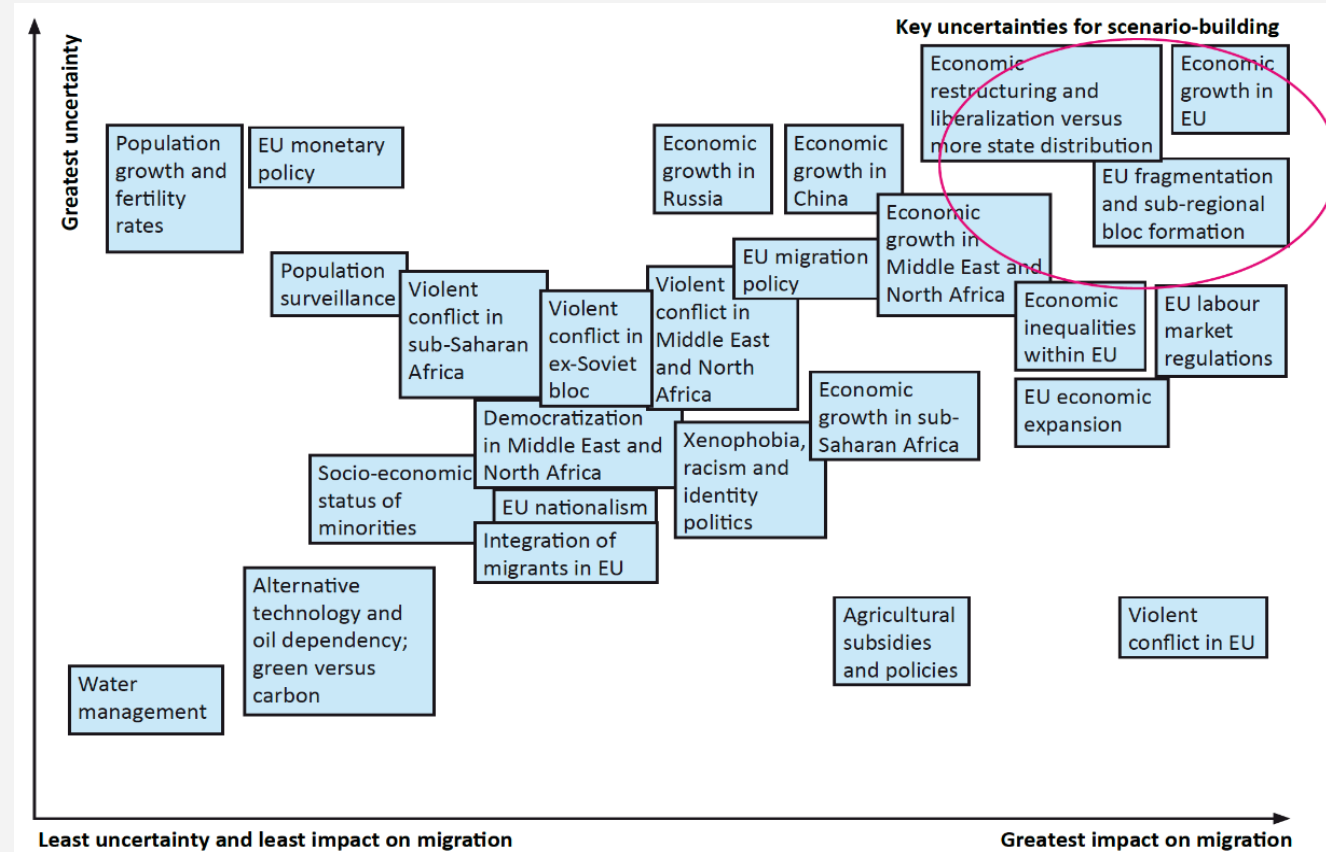
Source: IMI (2011)

The three groups of approaches

1. Early warning systems
   - Short-term
   - Mix qualitative-quantitative
   - Mostly humanitarian migration

2. Forecasts
   - Mid-term
   - Quantitative
   - Mostly regular migration flows (labour, family, student, etc.)

3. Foresight
   - Long-term
   - Qualitative
   - All migration flows

What can we (realistically) expect from migration forecasts?

➢ There is no universally preferable approach – it depends on the policy purpose

➢ There are trade-offs in terms of resources, data requirements, time horizons, etc.

➢ Understand political context → users and producers of forecasts should work together

Thank you!

For further information, please contact

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Additional Slides

Summary of select approaches

	Time Horizon	Migrant Flow	Policy Use	Output
Early warning system	Short-term	Humanitarian	Operational	Qualitative or quantitative
Econometric forecast	Mid-term	Regular	Planning	Quantitative
Time series extrapolation	Mid-term	Regular	Planning	Quantitative
Expert survey	Mid-term	All types	Planning	Qualitative or quantitative
Scenarios	Long-term	All types	Strategic	Qualitative

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2. Statistical model-based forecasts

➤ Mid-term

➤ Econometric regressions:

- Use of 'explanatory' factors

- Based on causal theories of migration

- 'Push' and 'pull' factors are quantified

2. Statistical model-based forecasts

➢ Mid-term

➢ Time-series extrapolations:

- No explanatory factors

- Use of historic (time-series) migration data
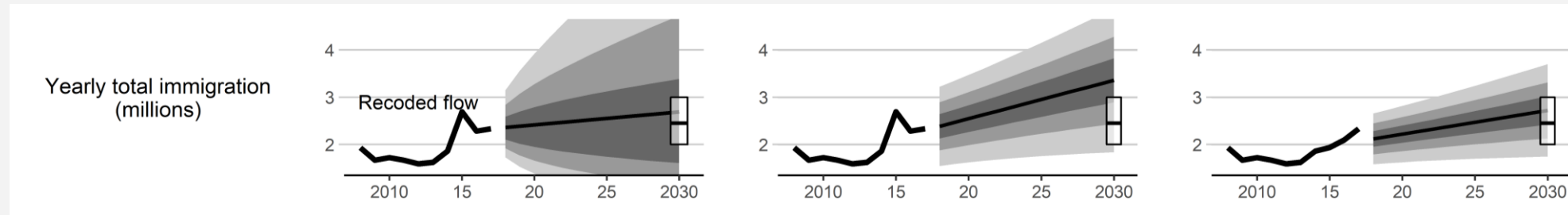
Source: Sohst, R., Tjaden, J. and Acostamadiedo, E. (forthcoming)

3. Expert- and survey-based forecasts

➢ Migration intention survey:

- Surveying potential migrants about their desire/plans/preparations to emigrate:

> *« Ideally, if you could afford it, would you like to move permanently to another country, or would you prefer to continue living in this country? »*
>
> (Source: Gallup World Poll)

- Intentions ≠ actions, but good predictor

- Widespread availability and comparability
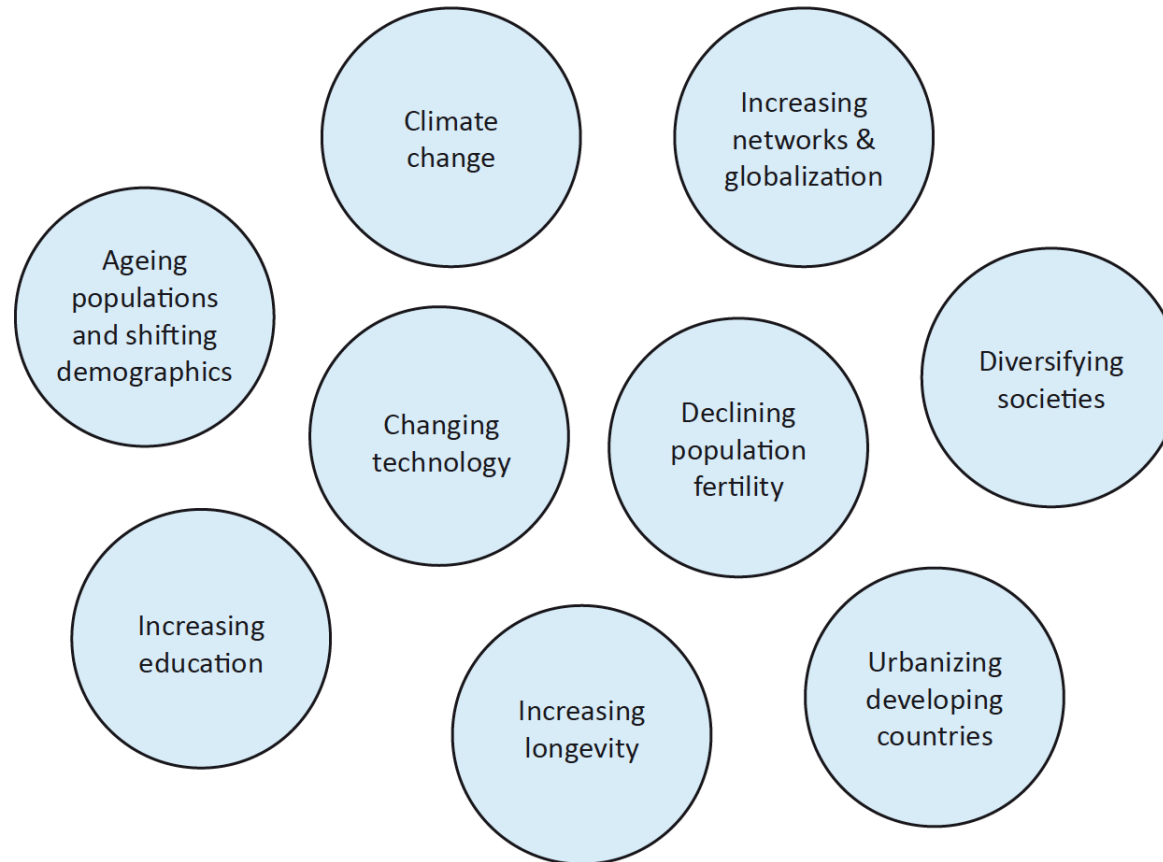
3. Expert- and survey-based forecasts

➢ Delphi expert survey:

- Systematic surveying of experts to collect migration estimates

- Reduces individual bias and group dynamics

- Complements statistical forecasts + adresses scarce data or volatile flows

(See talk by Susanne Melde for an example of a Delphi study)

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4. Example from a scenario workshop

Figure 1: Global 'megatrends' for future international migration

Source: IMI (2011)