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LOCKHEED MARTIN

Health DWG: WMO World Weather Research Programme

88th OGC Technical Committee

Washington, DC

Chris Little

Thursday, 27 March 2014

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Making location count.

WMO World Weather Research Programme - 1

- HIWeather, High Impact Weather project, 2015-2020
- Spans physical and human sciences
- Capitalise on recent advances in hazard forecasting to achieve a jump in resilience
- No direct funding of research, but some funds available for facilitation of collaboration through workshops, forecast demonstrations, inter-comparisons, best practice reviews, standards setting etc
- Health impacts is one key aspect of the human vulnerabilities and impacts theme, but little expert input on priorities
- Approval at the WMO Executive Council in May 2014

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HIWeather - 1

5 Hazard Areas:

- **Urban flood**, including sea, rivers and rainfall, with emphasis on megacities of the tropical developing world
- **Wildfire**, emphasising fire fighting and fire management rather than predicting elevated fire risk
- **Localised Extreme Wind**, including localised maxima within tropical and extra-tropical cyclones (e.g. sting jets), tornadoes, downbursts and down-slope windstorms
- **Disruptive winter weather**, including snow, ice, fog & avalanche, focussing on transport, energy, communications
- **Urban heat / air quality**, particular emphasis on health impacts in developing world megacities

HIWeather - 2

5 Themes:

- **Predictability and understanding**
- **Multi-scale prediction of weather-related hazards**
- **Human impacts, vulnerability and risk**
- **User-oriented evaluation**
- **Communication**

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7 Cross-cutting activities and issues:

- **Applications in the forecasting process:** develop capability to change the operational forecasting process
- **Design of observing strategies**: opportunities & limitations of observing strategies, local sophisticated observing systems, traditional global obs, crowd-sourcing, social networks, & ubiquitous sensors.
- **Uncertainty:** Probabilistic forecasts, understand processes that lead to uncertainty, improve quantifying and evaluating uncertainty, expressing uncertainty
- **Field campaigns and demonstrations:** observations & model outputs for new understanding, verify modelling advances, gather user needs, test new products & communication methods

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7 Cross-cutting activities and issues (continued):

- **Knowledge Transfer:** between disciplines, between advanced to less advanced centres, between academic experts and operational centres
- **Verification:** process understanding and model development, identify and measure the benefits achieved by the project
- **Impact Forecasting:** the emphasis on impacts will permeate all of the research themes

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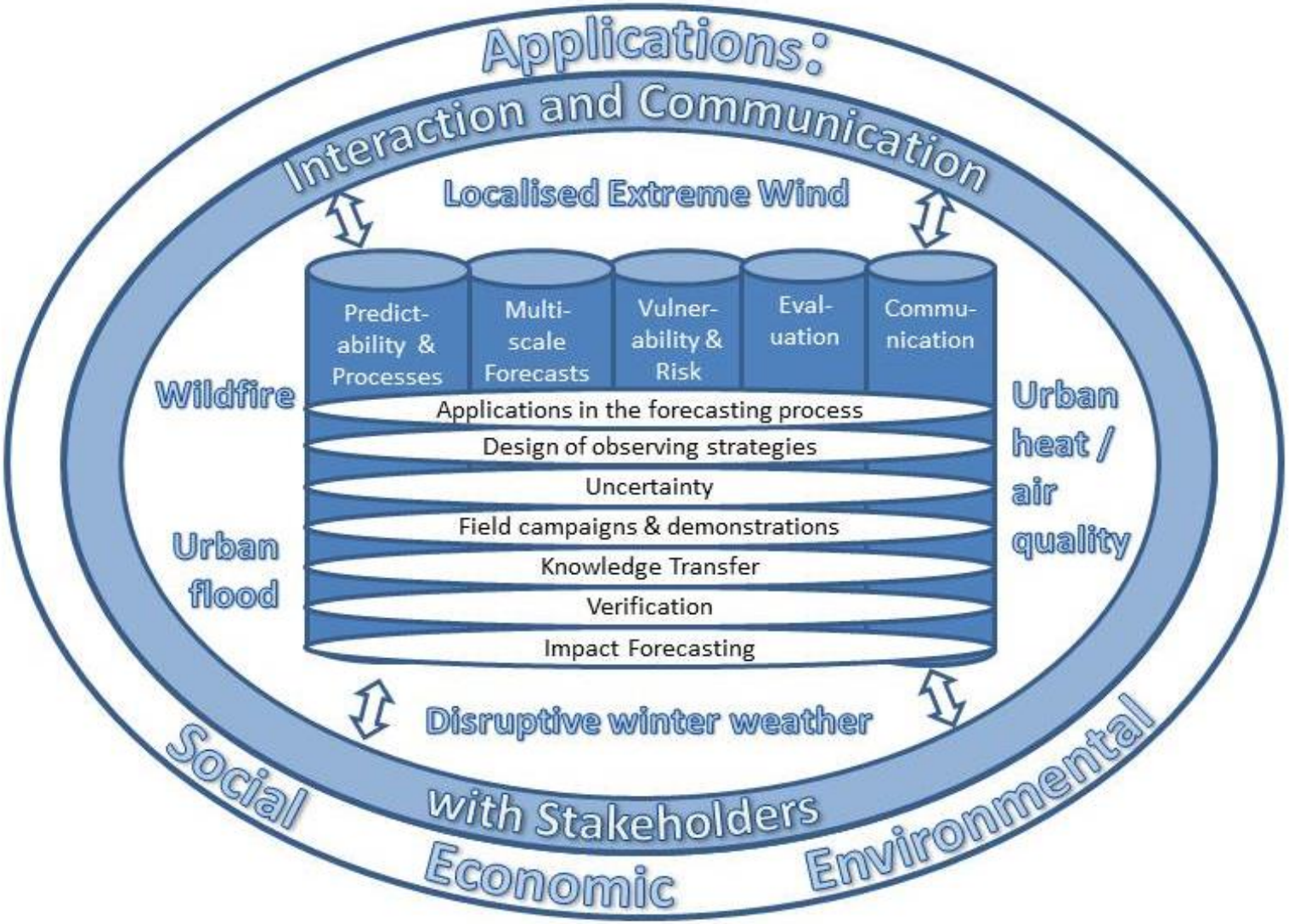
WMO WWRP: HIWeather



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HIWeather Next Steps

- Planning scheduled for a workshop in Silver Springs, Washington DC, 2-4 June 2014.
- Most likely format:
  - Day 1: Presentations
  - Day 2: Breakout groups to formulate activities plan
  - Day 3: Plenary discussion of proposed activities
- If interested in taking part, preferably with own travel funding, WMO would be very interested to hear from you

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