

Space science and technologies to advance national health-related SDGs

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14 DECEMBER 2022
11.30 a.m. – 1 p.m.

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UN-SPACE SESSION / WORLD SPACE FORUM SESSION IV **SPACE IN THE UNITED NATIONS**

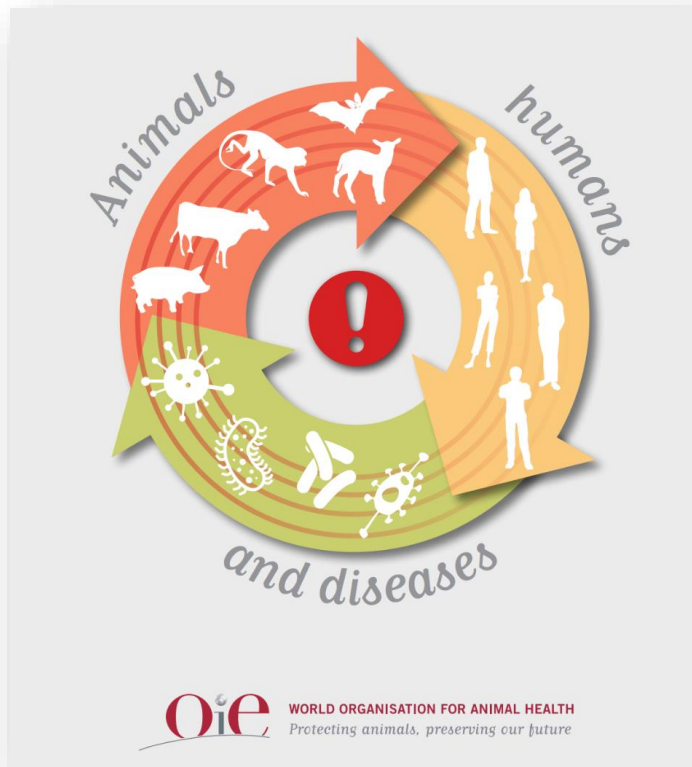
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Contextualizing One Health

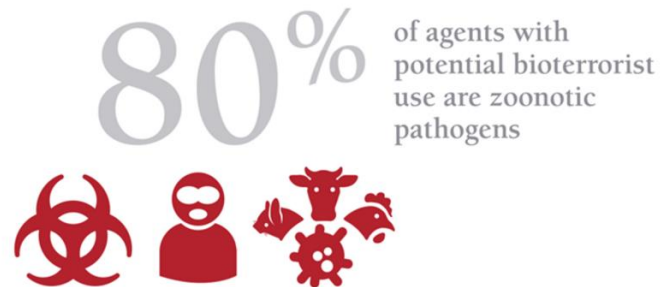
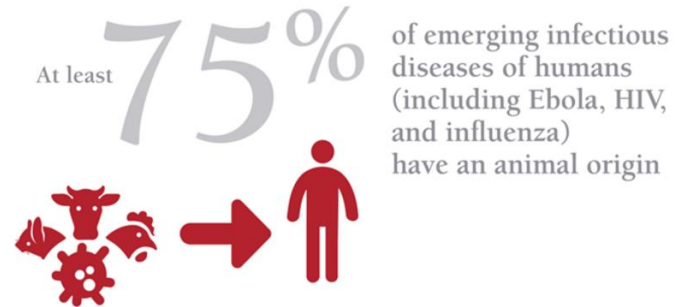
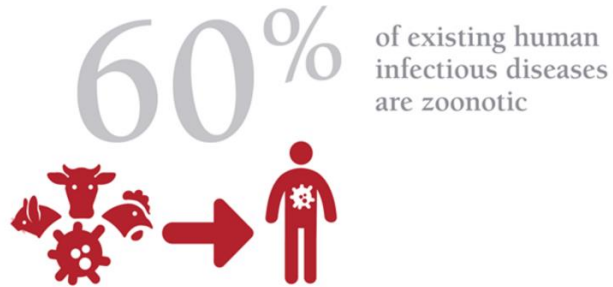
interconnectedness of
human health, animal health and
the environment

One Health



Source: OIE, 2016; <http://www.oie.int/for-the-media/onehealth/>

One Health



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Climate change

Overview of climate-sensitive health risks, exposure pathways and vulnerability factors

Vulnerability

Vulnerability factors

- Demographic factors
- Geographic factors
- Biological factors & health status
- Sociopolitical conditions
- Socioeconomic factors

Exposure pathways

- Extreme weather events
- Heat stress
- Air quality
- Water quality and quantity
- Food security and safety
- Vector distribution & ecology

Health system capacity & resilience

- Leadership & governance
- Health workforce
- Health information systems
- Essential medical products & technologies
- Service delivery
- Financing

Climate-sensitive health risks

Health outcomes



Injury and mortality from extreme weather events



Heat-related illness



Respiratory illness



Water-borne diseases and other water-related health impacts



Zoonoses



Vector-borne diseases



Malnutrition and food-borne diseases



Noncommunicable diseases (NCDs)



Mental and psychosocial health



Impacts on healthcare facilities



Effects on health systems

HEALTH IN THE SDG ERA



World Health Organization

[WWW.WHO.INT/SDGS](http://www.who.int/sdgs)



HEALTH IN THE SDG ERA



Cross sectional View of Relevance of Space Science to Public Health

Matrix of Relevance

SDGs

Space Science & Technology and Health

1: No Poverty

Prioritizing the health needs of the poor

2: Zero Hunger

Addressing the causes and consequences of all forms of malnutrition

6: Clean water and sanitation

Preventing diseases through safe water and sanitation for all

10: Reduced inequalities

Ensuring equitable access to health services through Universal Health Coverage Based on stronger primary care

13 Climate Action

Protecting health from climate risks, and promoting health through low-carbon development

14: Life below water

Supporting the restoration of fish stocks to improve safe and diversified healthy diets

15: Life on land

Promoting health and preventing diseases through healthy natural environments

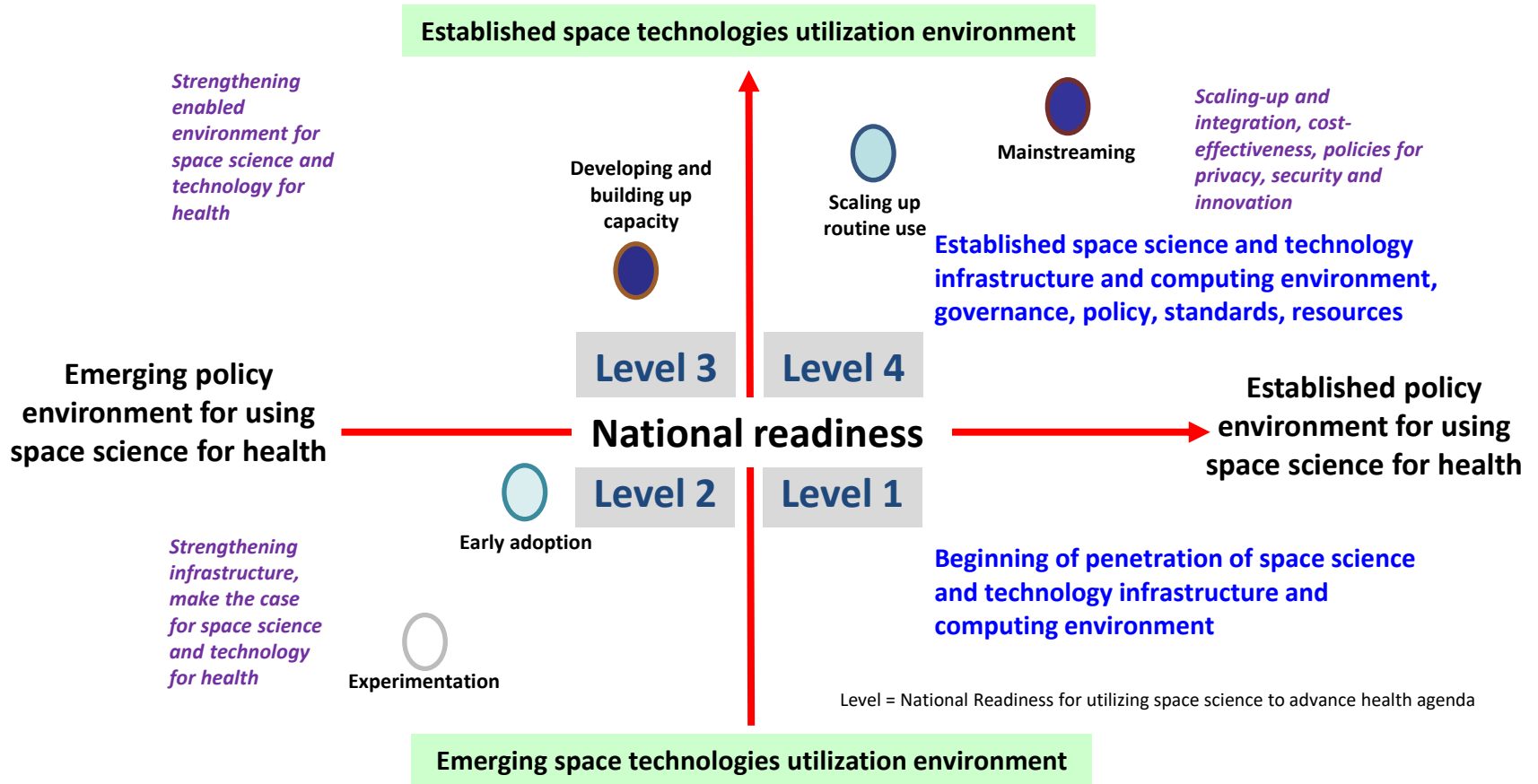


Strengthening national capacities and the need for a Framework

1. **National readiness** for utilizing space science and technology to advance SDGs
2. **Multi-sectoral engagement** for better cooperation in the context of One Health
3. **Alignment** of existing strategies, stakeholders, and efforts

Capacity Building - National Readiness Matrix

for utilizing space science and technology to advance health-related SDGs



Moving forward

- Facilitate formalized cooperation between health authorities and space authorities at national levels
- Assist Member States to establish policy-enabled environment and governance mechanisms for effective use of space-based technologies
- Promote equitable access to and application of space solutions for public health of Member States
- Promote capacity-building events in the context of One Health