Emerging Risk
Identification and Evaluation

Emerging Risk Management, Reto Schneider
Emerging Risk Governance

- Exploring/Scouting
- Detecting
- Reporting
- ?
Strolling

- not directed
- accidental
- surprise
- adventure
- hanging out
Scouting

- directed
- focused
- clear task
Sensing

- Senses
- Technology
- Network
Screening

- Raster/Grid
- Perimeter
- Plan
Galapagos finches showing different beak shapes
Birds,

Described by

John Gould, Esq. F.L.S.

With

A Notice of Their Habits and Ranges,


And with an Anatomical Appendix,

By T. C. Eyton, Esq. F.L.S.

Illustrated by Numerous Coloured Engravings.
Emerging Risk Management | Reto Schneider

These graphs of beak shape over time for two species of Galapagos finch show that a lot can change over a relatively short period.

**Geospiza fortis**

<table>
<thead>
<tr>
<th>Year</th>
<th>Beak shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>Blunt</td>
</tr>
<tr>
<td>1980</td>
<td>Pointed</td>
</tr>
<tr>
<td>1990</td>
<td>Pointed</td>
</tr>
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<td>Blunt</td>
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**Geospiza scandens**

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1. What can happen?
2. What can we do to prevent it?
3. Can we afford the prevention?

Risk Management Process

Risk Policy
- Risk appetite
- Risk tolerance
- Legal environment, public opinion

Risk Strategy
- Risk Management Goals & Communication

Risk Assessment
- Perception
  - Identification
  - Analysis
  - Quantification

Risk Treatment
- Avoidance
- Prevention, Reduction
- Financing, Retention

Risk Control
- Evaluation
- Steering
- Monitoring
Risk assessment

- How does the system work?
- What is the benefit / use?
- What can go wrong?
- What is the consequence?
- Public acceptance?
- Quantification: Any numbers?
- What could be done in terms of loss prevention?
- Is the prevention affordable?
- What is the accepted residual risk?
Global Risk Assessment Framework

- **Hazard**
  - Intensity
  - Frequency

- **Drivers** (Op. Environment)
  - Perceived Value
  - Protection Measures

- **Vulnerability** (Hazard vs. Asset)

- **Assets/Lives**
  - Life & Health
  - Physical Property
  - Financial Wealth & Income
  - Social & Psychological
  - Ecological

- **Risk Scenarios**
  - How Big? (Impact in $)
  - How Shocking? (Contagion, speed, accumulation)
  - How Likely? (Likelihood)

- **Risk Severity**
The SONAR process ensures that early signals are identified, assessed and acted upon.

Input  
Assessment  
Implementation  
Monitoring & control

Emerging Risk Management (ERM) responsible
- Pre-assessment, prioritisation and clustering

Emerging Risk Management support on demand
- Business plan
- Product and/or strategy development
- Product launch and marketing

Early signal  
Emerging risk
- Business spark
- Risk spark

Early signal  
Emerging risk
- Pre-assessment, prioritisation and clustering

Consolidation and interpretation of early signals

Business spark

Unrealised opportunity  
Seized opportunity

Signal is fading

Uncontrolled risk  
Controlled risk
- Risk scenarios  
- Development of mitigation measures  
- Implementation of mitigation measures

Time  
Emerging Risk Management  |  Reto Schneider
Emerging risks are an important concern for the insurance industry and its clients. Awareness has risen steadily over the last years.

With SONAR, Swiss Re has established a solid process for identifying, assessing and managing emerging risks.

The Swiss Re SONAR report presents insights on 25 emerging risk themes.

The intention of the report is to share emerging risk insights with our clients and other stakeholders to
a) act as door-opener for discussions on various topics,
b) trigger in-depth exchange about emerging risk mgt. and/or selected emerging risk topics,
c) support Swiss Re's position as knowledge leader.

The Emerging Risk Mgt. team informs and drives debate on emerging risks with clients and other stakeholders.
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Thank you