Novartis Enterprise Risk Management

Risk management is an essential part of our Ethics, Risk & Compliance organization (ERC)

Chief Ethics, Risk & Compliance Officer

- Risk & Resilience
- Speak-Up Office
- Strategy, Innovation & Corporate Functions
  - ERC Pharma
  - ERC Oncology
  - ERC Customer & Technology Solutions (CTS)
  - ERC Research & Development
  - ERC Novartis Technical Operations (NTO)
  - ERC Sandoz
    - Financial Reporting & Accounting Controls & Compliance
    - Information Security & Risk Management
    - Quality Compliance
    - People & Organization Risk & Compliance
    - Data Privacy Risk Management

ERC Communications
ERC People & Organization

1 Member of Executive Committee of Novartis
Novartis Enterprise Risk Management

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1 Mission
Risk & Resilience

Safeguard Novartis from risks, so that we can reimagine medicine

3 Areas

Risk & Crisis Management
- Enterprise Risk Management
- Health, Safety, Environment & Resilience
- Third Party Risk Management

Policies & Controls
- Enterprise Policies
- Risk & Internal Control

Monitoring & Remediation
- Central Monitoring
- Remediation
- Enterprise Monitoring Coordination

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Our process to manage risks at Novartis

- Novartis Risk Universe covering 21 risk areas
- Previous risk assessment results
- Risk leadership roundtable discussion

Risk assessment

- Risk identification
- Risk analysis
  - Risk impact
  - Risk likelihood
- Risk exposure
- Risk evaluation
  - Risk appetite

Risk workshops: At country / By BU – Division & Org. unit / By corporate function

Risk treatment

- Avoid
  - Not to start or continue with the activity that creates the risk
- Reduce
  - Define & execute an action plan to reduce likelihood and/or impact to a target level for the Novartis Risk Unit within a defined period
- Share
  - Transfer all or part of the risk externally
- Accept
  - Retain the risk by informed decision
- Pursue
  - Take or increase the risk in order to pursue an opportunity

Monitoring & review

- Monitor risk mitigation progress quarterly for Very High risks and every 6 months for all others
- Review of risk status centrally by ERM team

Recording & reporting

- Novartis Enterprise Risk Management Tool
- Risk Reporting to the Executive Committee of Novartis
- Quarterly and Year-end reporting to the Risk Committee of the Board of Directors

Communication & consultation

- Promote risk awareness
- Reiterate risk ownership
- Support decision-making
Novartis Enterprise Risk Management

Our evaluation method is a 5x5 matrix in combination with the Novartis Risk Compass that helps us to prioritize our risks and set the focus.

5x5 Risk Matrix

Novartis Risk Compass

- **Strategic Risks**: Risks that are most consequential to Novartis' ability to execute its strategy or achieve its business objectives.

- **Operational Risks**: Risks resulting from inadequate or failed internal processes and/or systems, employee errors or from external events.

- **Emerging Risks**: Identified risks that require close monitoring, which may evolve to a significant Operational or Strategic Risk.

- **Awareness Topics**: Trending topics that are not accounted by Novartis risk management yet, but have the potential to become a new risk.
Novartis Risk Compass
Top risks in 2021

Strategic Risks
1. Key products and commercial priorities
   Failure to deliver key commercial priorities and successfully launch new products
2. Pricing, reimbursement and access
   Pricing and reimbursement pressure, including transparency and access to healthcare
3. Alliances, acquisitions and divestments
   Failure to identify external business opportunities or realize the expected benefits from our strategic acquisitions or divestments

Operational Risks
1. Cybersecurity and IT systems
   Cybersecurity breaches and catastrophic loss of IT systems
2. Fragmented IT landscape and ERP / EDM implementation
   Fragmented business processes and unclear data ownership may impact future digital opportunities including the implementation of the new Enterprise Resource Planning (ERP) and Enterprise Data Management (EDM) governance
3. Talent management
   Inability to attract, integrate and retain key personnel and qualified individuals

Emerging Risks
1. Geopolitical and macroeconomic developments
   Impact of geo- and socio-political threats and macroeconomic developments
2. Tax laws and developments
   Changes in tax laws or their application
3. Intellectual property
   Expiry, assertion or loss of intellectual property protection

Awareness Topics
1. Climate change
   Climate change and increased risk of major natural disasters
2. Changes in disease patterns, antimicrobial resistance and pandemics
   Antimicrobial resistance is a growing threat to public health, closely related to changes in disease patterns including possible future pandemics
3. Falsified medicines
   Impact on patient safety and harm to reputation of Novartis and our products