UN-GGIM: Europe
Work Group A « Core Data »

SDG related use cases
Risk
1.5 Build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

11.5 Significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.b Substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
Assess risk

Forecast hazard
- Physical modelling
  - Locate hazard source
    - Forecast hazard propagation
- Historical data

Assess impact
- Assess number of persons
  - Monitoring
- Locate most valuable assets
Manage risk

Mitigate risk
- Make spatial planning
- Build protective constructions
- Monitor (e.g. building permits)
- Find suitable location

Emergency response
- Communicate to citizens (advices, alerts)
- Manage emergency rescue

Recovery - Post disaster management
- Assess the damages to pay compensation
- Restoration operations
Pollution
3.9 Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

11.6 Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

12.4 Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
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- Make waste management plans
  - Organise refuse collection
  - Find relevant place for landfill and other waste storage
  - Mitigate release of hazardous substances (permits)
3.9 Substantially reduce the **number of deaths and illnesses** from hazardous chemicals and air, water and **soil pollution** and contamination

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**Diagram:**
- Assess air pollution
  - Analyse and monitor
  - Mitigate air pollution
    - Offer more public transport
    - Set up regulations
  - Assess impact of air pollution on human health
    - Mitigate air pollution impact
    - Find relevant place for schools and health facilities
Climate change
13.1 strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries

13.2 integrate climate change measures into national policies, strategies, and planning

- Analyse greenhouse gas evolutions
- Fossil energy saving
  - Increase renewable energies
  - Improve building energy efficiency
  - Decrease light pollution
  - Offer better public transport
• **13.1** strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries
• **13.2** integrate climate change measures into national policies, strategies, and planning
• **15.3** combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
Water
6.1 - achieve universal and equitable access to safe and affordable drinking water for all

- Make state-of-play – identify the trends
  - Make state-of-play
    - Locate water resources
    - Locate delivery installations
    - Locate people
  - Make accessibility studies

Analyse and monitor
6.1 - achieve universal and equitable **access** to safe and affordable **drinking water** for all

**Improve accessibility**

- Find relevant place for new water network (pipes, ...)
- Avoid digging accidents (breakdown)
- Manage incidents; organise quick interventions
- Manage risk on water supply
6.2 By achieve **access** to adequate and equitable **sanitation** and hygiene for all

- **Make accessibility studies**
  - Find relevant place for new sewer networks
  - Avoid digging accidents (breakdown)
  - Manage incidents; organise quick interventions

**Analyse and monitor**
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
6.4 substantially **increase water-use efficiency** across all sectors and ensure sustainable withdrawals and supply of freshwater to **address water scarcity** and substantially reduce the number of people suffering from water scarcity.
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Forecast future water resources

- Deliver water abstraction permits
- Coordinate management of drainage basins
- Interconnect existing networks => new pipes
6.6 - protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

15.1 ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

State-of-play of threads on water ecosystems

Protect water ecosystems by regulations

State-of-play of the water ecosystems

Analyse and monitor
Oceans
14.1 Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

14.2 Sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

14.4 Effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.
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• **14.3** Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

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**Locate source of marine pollution**

**Assess ocean waters quality**

**Analyse and monitor**
• **14.2** Sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.

• **14.4** Effectively regulate harvesting and end overfishing.

• **14.5** By 2020, conserve at least 10 per cent of coastal and marine areas,

Assess marine and costal ecosystems  Analyse and monitor  Decide on protected areas
Ecosystems
15.1 Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.2 Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

15.3 Combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.4 Ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.8 introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
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- Make state-of-play, identify trends
  - Protect biodiversity
    - Get bigger forest properties
  - Encourage better exploitation of forests
  - Advice relevant species for climate change
    - Use wood as renewable resource
  - Avoid deforestation around cities by spatial planning

- Analyse and monitor
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.
15.8 Introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

- Assess presence of invasive species
- Understand propagation and impact of invasive species
- Find responsible party for applying decided actions.
- Analyse and monitor
Agriculture
2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

Protect food production from risks, pollution, plant or animal diseases

Analyse and monitor
2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
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- Encourage nature-friendly practices
  - Apply and monitor the green box conditions (CAP)
  - Assess environmental impact of land use change (nature => agriculture)
  - Maintain agriculture in less favoured areas
  - Sustainable irrigation
  - Soil protection (erosion)
  - Improve running of chemical treatments for crops
Energy
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

Make accessibility studies

- Find relevant place for new power plants or networks
- Avoid digging accidents (breakdown)
- Manage incidents; organise quick interventions
- Manage energy crisis

Analyse and monitor
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.
7.3 By 2030, double the global rate of improvement in energy efficiency

- Avoid digging accidents
- Avoid / manage leakages
Cities - settlements
9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on **affordable and equitable access** for all.

11.a Support positive economic, social and environmental links between urban, per-urban and rural areas ....

11.6 reduce the adverse per capita environmental **impact of cities**....

- **Classify urban/rural areas**

- **Understand interactions between rural/urban areas**

- **Make accessibility studies between rural/urban areas**

- **Make studies on urban metabolism**

- **Analyse and monitor**
11.1 Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

- Assess quality of habitat
- Analyse and monitor
- Make land reserve for social habitat
- Assess environmental impact of new projects (quality of habitat point of view)
- Make spatial planning / assess the constraints => plan safe places for constructible areas
11.3 Enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

11.4 Strengthen efforts to protect and safeguard the world’s cultural and natural heritage

Spatial planning

- Assess the trends (requirements)
- Assess the constraints
- Make decision

Communicate to citizens

Monitor urbanism rules
Society - Economy
1 – End poverty in all its forms everywhere

10 Reduce inequality within and among countries

- Make poverty state-of-play – identify less favoured areas
- Decide on priority areas (to better target allocation of funds)

Analyze and monitor
1.4 – Ensure that all men and women have equal rights to access to basic services

4 Ensure inclusive and equitable quality education for all

11.1 Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

11.2 provide access to safe, affordable, accessible and sustainable transport systems for all

3.6 Halve the number of global deaths and injuries from road traffic accidents
Accessibility to utilities

Accessibility to water

Accessibility to sanitation

Accessibility to energy

Accessibility to telecommunications

Make accessibility studies

Find relevant place for new antennas

described in

7 Affordable and clean energy
6 Clean water and sanitation
Accessibility to other basic services

- Make accessibility studies
  - Find relevant location for a new public service (school, hospital, ...)
  - Find relevant location for a new road or railway
  - Find relevant itinerary for new public transport

Analyse and monitor
8– Promote sustained, inclusive and sustainable economic growth

8.9 devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products

Make economic statistic studies

- Ensure land transaction security
- Enable geomarketing and reliable delivery of mails and goods
- Provide educated staff => access to education
- Ensure safety
- Fight against organised crime
- State-of-play of natural resources
- Promote (sustainable) tourism

Access to infrastructure (transport, basic services)
8.4 Improve progressively **global resource efficiency** in consumption and production

12.2 Achieve the **sustainable management and efficient use of natural resources**