Zoo case:

Jonathan, the executive of the department of wild animal intrusion into human environment of the animal control service receives a warning message from an underground station, located in north-western area of Rotterdam.

A cage door in the zoo located nearby was left open by mistake and a tiger escaped during non-rush hour. The wardens of the zoo tried to corner the animal themselves but they failed and the tiger panicked from the cars and the awareness of freedom found shelter in the nearest train station. Commuters were shocked in the sight of the animal. Many tried to run away, others called the police and the fire brigade. Due to the panic caused by the animal in combination with the lack of any kind of training for this kind of situations, the policemen that arrived first at the station shouted the animal with lethal ammo killing it.

Cases like that, even though rare, can be potentially dangerous for the residents of the nearby area. The development of an SDSS could help locating escaped animals as soon as possible, so that human-threaten situations are minimized and animals are effectively retrieved when possible.

If the animal control agency was equipped with the mentioned SDS System, Jonathan could provide detailed information in order to optimize the animal retrieval process. Of course Jonathan will need to provide information to the SDSS obtained from the zoo, with the most important being the animal species that escaped, the number of the animals escaped, the time and the location.

The next step is to decide the level of importance for the incident. For a case like the above where the animal that escaped is really dangerous like a tiger the importance should be evaluated as level A. In that case the user should inform also the police and the fire brigade in order to help with the situation closing down the area and any nearby facilities of great importance like schools, hospitals, train stations etc. in order to minimize the danger of people encountering the animal. The media need also to be informed in order to let the people of the area know about the incident in order to find a safe house and if they have in information about it to inform the authorities.

At the same time the combination of animal species, the time and the location can help the user to determine at first a buffer zone where the possibility of locating the animal is high.The research team then has to focus its efforts there. Also depending on the animal,the system can estimate possible routes and distance taking into account the animal’s speed and instinct. Some animals tend to hide when scared so the user need to determine the places that is more probable to hide. Finally depending on the animal the user need to provide information about the best possible way to neutralize and capture the animal. Of course the main concern in the case of a dangerous escaped animal is to avoid any encounter with humans,but the system oughts to consider the worst case scenario. In a lower level of importance case, people will also be able to provide information for the missing animal.

The most important aspect of the whole plan is that it will happen in real time and any new clue about the animal location will be added by the user in the SDSS recalculating the probable location and root helping the searching team to locate as fast as possible the animal.

In conclusion the aim of Jonathan is to guide, providing information through the SDSS to the search team in order to find the animal/s as soon as possible, with the safest way possible for the bystanders, the search team and for the animal.