the worst one (there is always a possibility that something is overlooked or omitted, e.g. ships' collisions and/or terrorist acts), and ii) lack of consistency in how to consider incident/accident uncertainty in the siting process. • Differences in assessed impact zones were within a factor of 2 to 3 (the same computer code – PHAST was applied by Italian and Slovenian experts). • The exclusion zone of 2000 m around sea terminal covers impact areas of all analyzed accident scenarios. • Cross-border impacts are expected around sea terminal in the zone of about 7 km2 (a variation of around 1 km2 emerges due to unclear borderline between Italy and Slovenia in that region). Based on this, Slovenian Administration obtained a formal role in the Italian licensing procedure. On the other hand cooperation between neighbouring countries is possible on a "common sense and good neighbour policy" rather than clear regulatory basis. Explicit consideration of risk evaluation in strategic environmental assessment for energy and other industrial plans seems to be a necessity.

### TU-IV-6

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## Natural risk approaches: Comparisons and applications within global change.

In recent years, risk analyses have been developed for specific natural hazards in various regions. Commonly, risk calculations combine the physical processes and the consequences. The processes are expressed as occurrence probability for a given period, region and for a defined process magnitude. Consequences include elements at risks such as persons and assets as well as their vulnerability to a given process magnitude.

It is highlighted, that all these parameters of both physical processes and consequences are subject to continuous change over time, but at different rates. However, it is rather difficult to differentiate between the effects of environmental and social changes. This situation is further complicated by human interventions through protective measures. Structures like snow fence or slope enforcement walls change the total behaviour of the natural system and the processes operating on the land surfaces. Both natural and human induced changes lead to a change of corresponding risk.

The risk assessment of natural hazards is compared for landslides and snow avalanches in two different environmental settings in the European Alps and in Iceland. It is of major importance, to investigate such scenarios in detail to approximate the development of future risks.

### MO-IV-7

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# Perceptions, attitudes and acceptance of GT apples by Dutch public and apple growers compared.

Whereas most research on acceptance of genetically modified food (GMF) have focused on factors that influence public perceptions, attitudes and intentions towards GMF, this paper examines the potential growers' support of a hypothetical GM food product, and more specifically a GM apple. Understanding of growers' intentions towards GM apple is of very importance for Dutch policy makers in the context of EU regulations about the co-existence of different farming systems, which emphasize the responsibility of each member country in addressing the issue of co-existence. In addition the paper reports findings from a comparison of the growers and public support regarding the use of genetic engineering in apples. The data for the paper were gathered from a sample of 1100 Dutch adults, randomly

selected from the general public by a professional research agency, and 172 Dutch apple growers. The data were gathered by means of a mail survey during the year 2006. This paper presents the first results of the survey. The comparison of intentions between the groups is further investigated by exploring how the determinants of support vary by benefits, risk, perception, trust, and the life style and sociodemographic variables. The implications of the results for the policy making are discussed.

## TU-IV-5

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## Diaries as a tool in risk perception research: A comparative and empirical study.

In a recent structured review of the qualitative risk perception literature (Hawkes and Rowe, submitted), we found that research has tended to focus on a narrow range of samples (e.g. convenience samples of adults in industrialised Western nations), using a limited range of techniques (mainly interviews), looking at immediate perceptions (with little consideration for the formation and development of perceptions over time), and focusing upon a limited range of hazards (i.e. severe technological/manmade hazards). As such, it may be argued that the risk perception 'universe' remains relatively unexplored.

One method relatively unutilised in the risk perception domain is the diary. Diaries are more commonly associated with historical, personal documents, and have only rarely been used in wider social research. Nevertheless, contemporary, solicited diaries can provide us with a different perspective on risk than that acquired through the more traditional route of interviews and focus group discussions. Diaries may allow the elicitation of narratives of risk contextualised within people's everyday lives, as well as allowing consideration of how people's perceptions of risk develop and change over time.

In this presentation we discuss the benefits of diary research, and report results from an ongoing qualitative study about what people are concerned about. We will focus on the comparative nature of the study and will compare the findings from diaries with data attained from interviews and focus groups, highlighting the qualitative and quantitative differences between the methods. Our results emphasize the importance of taking a multi-method approach to understanding risk perception.

#### TU-VI-5

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Balancing the requirements of law and established practice against the demands of crises.

Principles for the management of risk and crisis situations are formulated in legislation, in formal and informal rules and in organisational practices. Actual crisis events tend however to present problems which have not previously been envisaged. Decision-makers must evaluate the demands of the situation in relation to interpretations of existing principles. In this paper, some dilemmas inherent in this act of balance are exemplified from recent Swedish experiences. The Swedish crisis management system is based on three guiding principles: responsibility, parity and proximity. Strict adherence to the principles of responsibility (whoever is responsible for an activity in normal conditions is also responsible in a crisis) and the principle of parity (organization in a crisis should as far as possible be the same as under normal conditions) can, however, conflict with other values in dealing with a crisis. For