

Introduction to the expertises of the Field of Action “Management of Uncertainty – A Key to Fostering Innovation”

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Uncertainty is not a new phenomenon. It counts among the basic experiences of human existence. Based on the Enlightenment and the scientific-technological progress, modern industrial societies have set themselves the aim of overcoming uncertainty. Special impact occurred in the area of industrial production. Science and scientific foundations for certainties about natural, but also social processes became the basis for planning, and planning again became the basis for certainties and orientation for individual and social acting. There is no doubt that enormous success was made here – in industrial production, but also in other social areas of life.

But the further scientific and technological control of natural and social processes goes on the more its limits become visible. It becomes clear that uncertainties do not only prevail, but that new ones emerge in the course of progressing scientific-technological developments. The increasing change dynamics of modern societies and the promotion of innovation and innovative ability do not make uncertainty disappear but render them a substantial element of social development. This does not entail dangers and risks only, but also opportunities and potentials that have to be utilized.

Modern societies, however, are ill prepared to deal with uncertainty beyond the logic of reduction and domination. Uncertainty is considered the cause of insecurity, helplessness, dependency and passive fatalism. But if uncertainties cannot be removed but grow and emerge anew in spite of new certainties a new strategy of dealing with uncertainty beyond the paradigms of domination on the one hand and helplessness on the other becomes a question of survival for society. It seems necessary to revert from strategies of reduction and domination towards acceptance and coping with uncertainty.

In a first step, the Field of Action “Management of Uncertainty” developed problem-oriented expertises. They show how new ways of dealing with uncertainty become necessary in various practical fields of economy and work and how new approaches can already be found in scientific discussion. The expertises relate to the fields (1) People, (2) Organizations and (3) Technology and highlight changes in dealing with uncertainty (1) in vitas, biographies and learning, (2) in project organization and product innovation and (3) in complex technological systems. The expertises pursue the questions how

- Uncertainty has always been a problem
- It has been and still is tried to transform Uncertainty into certainties
- Dealing differently with Uncertainty becomes a new challenge in current developments
- New approaches on dealing with uncertainty emerge in science and practice.