CHALENGES IN
RESEARCH AND RISK ASSESSMENT FIELD

view of veterinary medicinal products assessor, Lucie Pokludová, ISCVBM, CZ

Do we need a global research agenda?

Yes (fundamental research)
… but **local also required** (research / surveillance / monitoring)

AMR needs a global knowledge but a local, evidence based, action

Should Europe take the lead in developing this agenda?

- **TATFAR platform**
- **VICH platform**
- **Codex Alimentarius**
- **OIE**
- **certain projects could be co-led by EU**

EU:
-- need to establish the EU targets / priorities
-- recognise that actions taken at the local level are of critical importance
-- better co-ordinate EU activities – collect/analyse existing data
-- EU measures – have to respect economics of animal production

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Which specific data is needed in order to be able to assess individual control options to limit the spread of AMR?

… in addition to the data available (surveillance, ESVAC…) for RA today:

- **PK/PD DATA** (species specific data => set proper dosing/duration of treatment)
- **INTERPRETATION VETERINARY CRITERIA** (species /diagnosis specific)
- **RESISTANCE SELECTION FACTORS** (substance specific , pathogen specific)
- **AMR EPIDEMIOLOGY/ microbial strains** (human ⟷ animals; cross species)
- **TARGET PATHOGENS SUSCEPTIBILITY / RESISTANCE** (MIC profiles, trends)
- **DEFINITION OF BIOLOGICAL RISKS** (including „limits")
- **RESISTANCE SELECTING FACTORS** (ATM substance / pathogen specific)
- **Co-selection / Co-resistance factors**

      NON-RESISTANCE FACTORS investigation

      to recognise mechanisms supporting/promoting the spread of AMR e.g.:
- virulence factors of MDR strains
- co-selecetion by metals like Zn, Cu etc,
- co-selection by nutrition factors

- **DISINFECTANTS** (as a tool for keeping hygienical standards):
  - more data on resistance, co-resistance with ATM

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Could current surveillance systems detect emerging risks?

Partially yes:

+ EFSA: „Zoonotic + indicator" surveillance program - well set for detection of risks

+ EMA - ESVAC : vet ATM consumption data well set , but space for improvement :
- data per species,
- units of measurement of exposure of animals to ATM

+ HMA + FVE: ATM prescription habits survey among EU vets
- data on factors influencing ATM prescription +
- species/diagnosis/ATM data on prescription

Need for setting of surveillance of the target veterinary pathogens
- Lack of EU harmonised methodology and **interpretative criteria for veterinary isolates**
- Pan European Surveillance Scheme is currently starting

Need for more quick release of the results
- i.e. data on resistance to be available next year after the period analysed

Need for **enforcement of data analysis and „user friendly" interpretation**

Need for **release of recommendations for practice**, where possible

Need for **rapid diagnostic methods development** (cheap and available for practice)

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What is the impact of international trade (products and animals) and travel on the development /spread of resistance in humans and animals in the EU?

Food producing animals transport impact:

There is impact which was documented- e.g. transport of the one day old chicks among countries (ESBL transmission) - studies published e.g.:
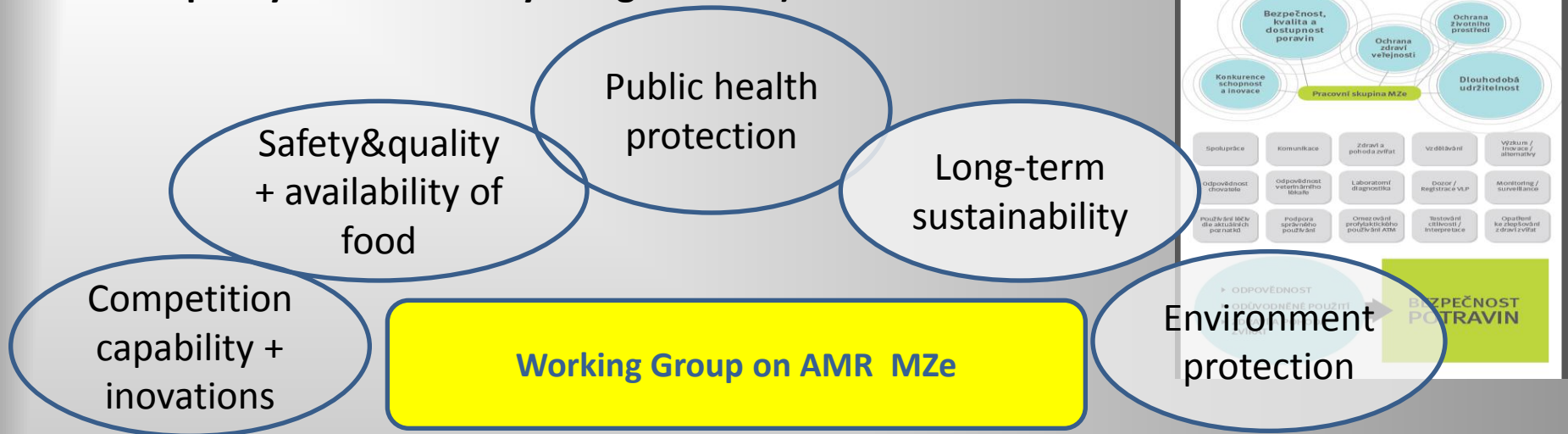
- NL and SE – international trade consequences

- DE (organic farming, but one day old chicks from conventional breeds with wide use of ATMs)

Need for biological safety criteria for food safety:

- RESIDUES: MRLs system in place and functional

- RESISTANCE: setting of limits and emerging AMR patterns

Complexity of conderations in RA and RM

(Extracted from the poster for EU Antibiotic Awareness Day 2013 Antibiotic policy of CZ Ministry of Agriculture)

Public health protection

Safety&quality + availability of food

Long-term sustainability

Competition capability + inovations

Working Group on AMR MZe

Environment protection

Cooperation	Communication	Animal health and welfare	Education	Research/ inovations/ alternatives
Farmer responsibility	Veterinarian responsibility	Laboratory diagnostics	Inspections + VMPs authorisation	Monitoring / surveillance
VMPs use acc to current status of knowledge	Promotion/ incentives to resposible use	Reduction of prophylactic use of ATM	Susceptibility tests + proper interpretation	Measures to improve animal health