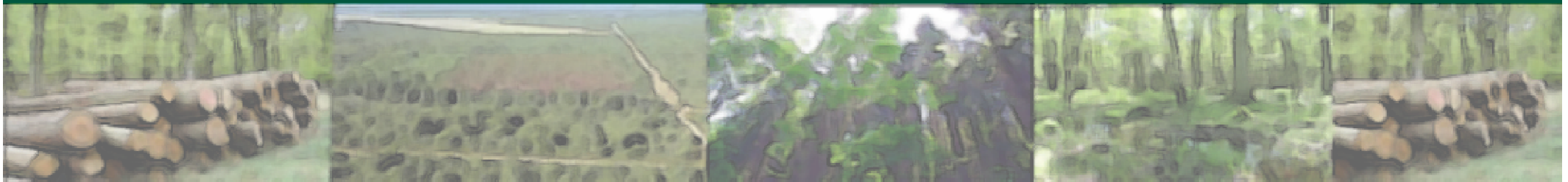




<http://maplas.mf.llu.lv>

Forestry risk management system



IEGULDĪJUMS TAVĀ NĀKOTNĒ

Mg.sc.ing. Salvis Dagis

Latvia University of Agriculture



EIROPAS SAVIENĪBA

IEGULDĪJUMS TAVĀ NĀKOTNĒ



LLU
MEŽA FAKULTĀTE

Acknowledgements

The research was carried out in the framework of the project 'Support system of decision making in sustainable forest resource management planning' (agreement No. 2010/0208/2DP/2.1.1.0/10/APIA/VIAA/146, Latvia University of Agriculture)

IEGULDĪJUMS TAVĀ NĀKOTNĒ

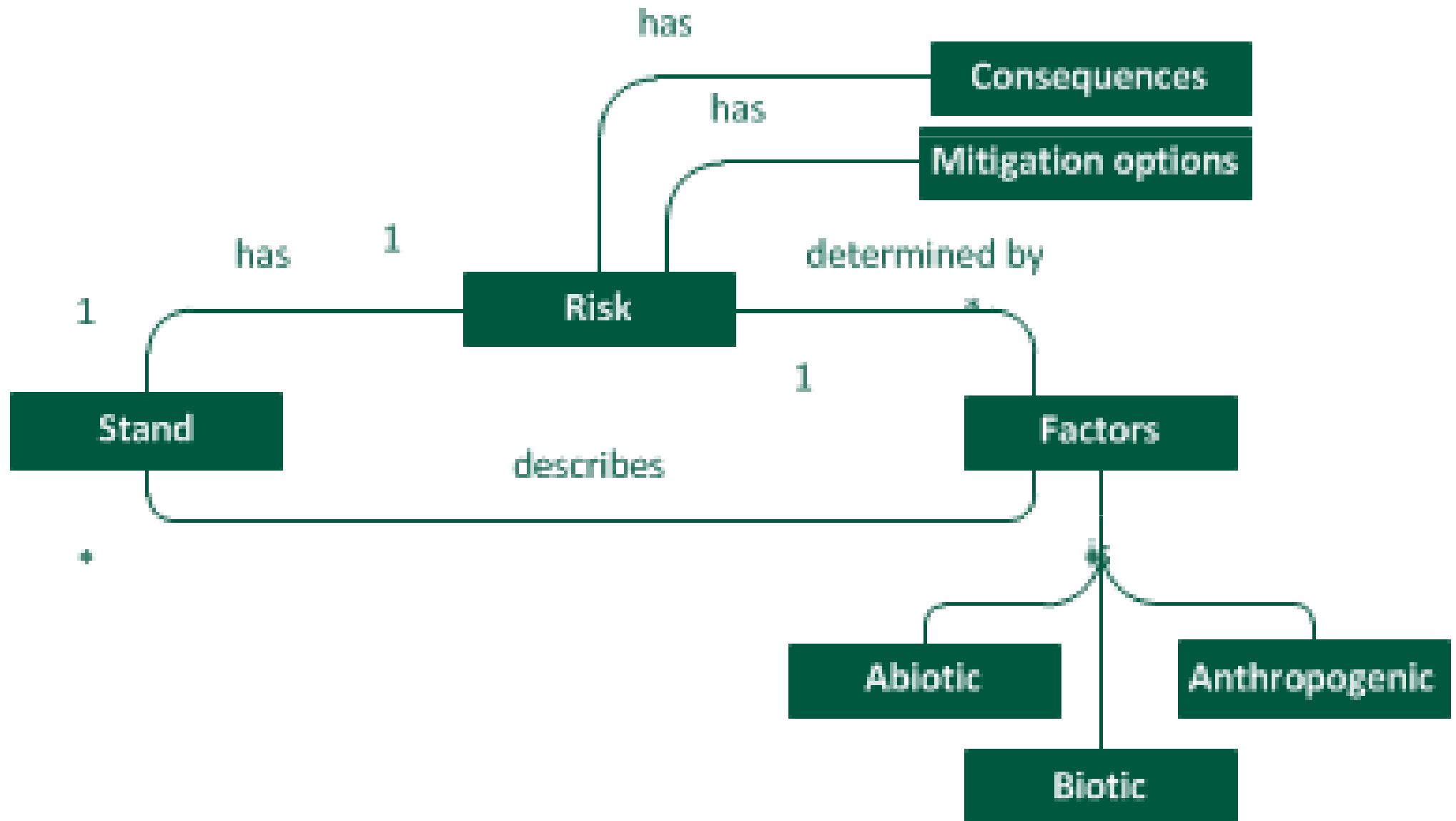


EIROPAS REĢIONĀLĀS
ATTĪSTĪBAS FONDS



EIROPAS SAVIENĪBA

What is risk?



Risk managment

Risk management is the use of methods and techniques which can help to :

- predict the risk to a certain degree
- develop measures for risk prevention and mitigation before the event
- reduce the negative effects of the event

*Kaktiņš J, Arhipova I (2002). Riska vadīšanas teorētiskie pamati. LLU Raksti, Nr. 6 (301): 52– 63.

*Arbez M, Birot Y, Carnus JM (2002). Risk management and sustainable forestry. EFI Proceeding No. 45, pp. 92. URL: http://www.efi.int/files/attachments/publications/proc45_net.pdf

Problems of risk analysis

- Studies require extensive historical data set
- Areas, where the risk is assessed, must have very detailed description
- It is necessary to analyze the interaction of events, because one area is subject to influence of various
- Occurrence of one event is determined by various factors.

Data sources of risk module

For definition of risk scenarios:

- collected field data
- the analysis of literature

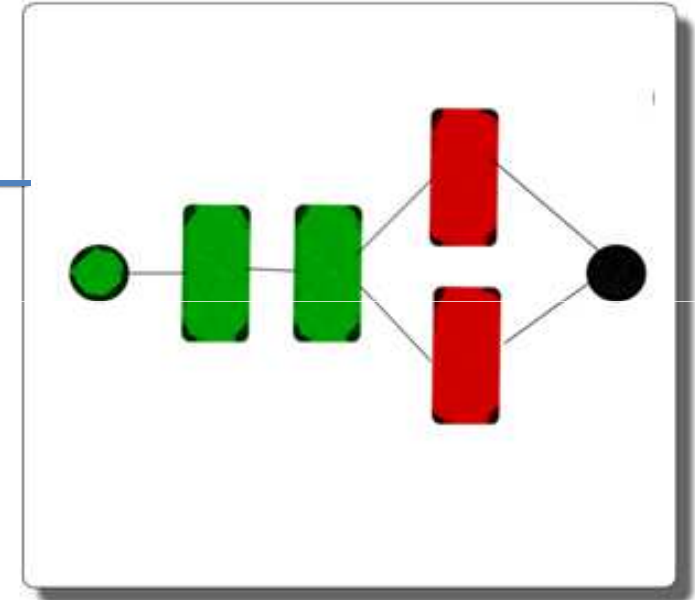
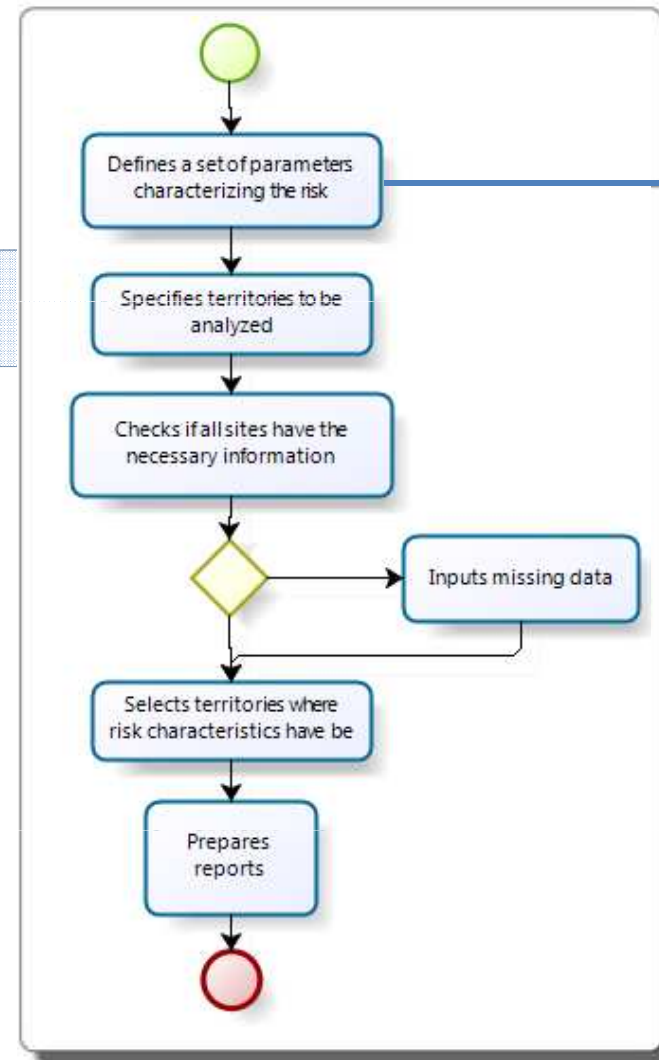
For risk analysis :

- inventory data
- additional information provide by owner
- GIS data

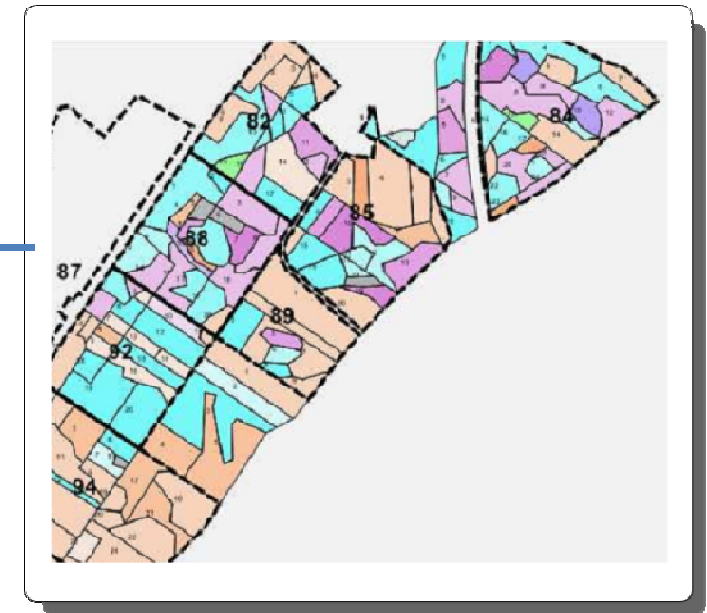
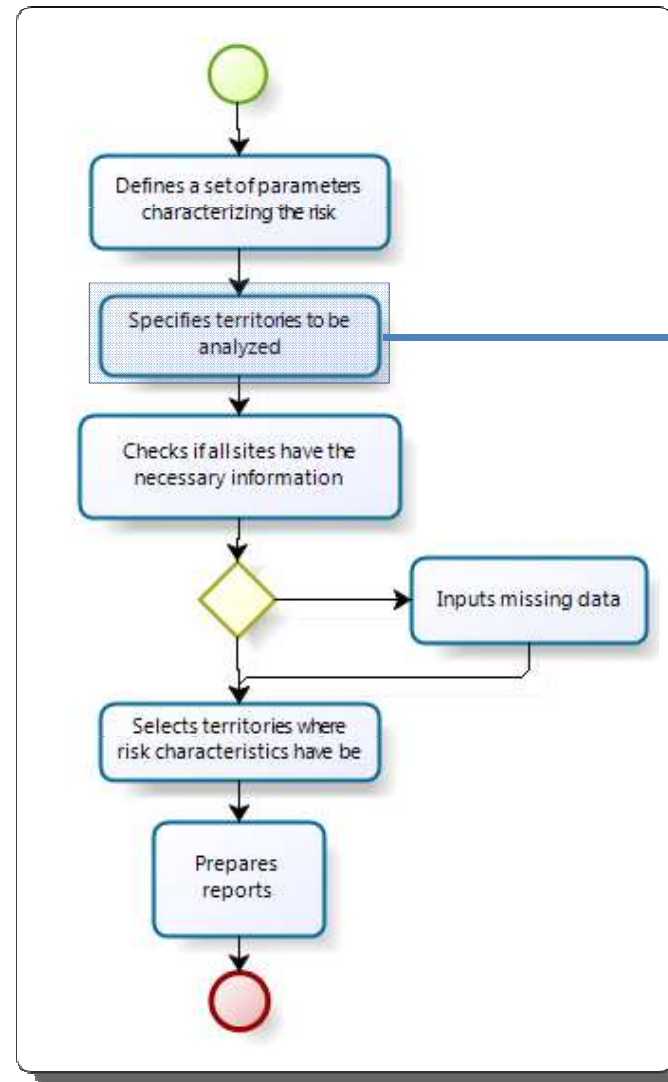
Structure of risk module

- Territorial data management block
 - *System section that enables management of basic inventory data and input of additional information which is not included in it*
- Risk definition block
 - *Allows to define risk occurrence scenarios according to the data collected in research*
- Block of risk screening
 - *Determine risk scenarios and territories that are analyzed*
- Reports
 - *lists of territories with occurring risks scenarios and descriptions of their consequences*

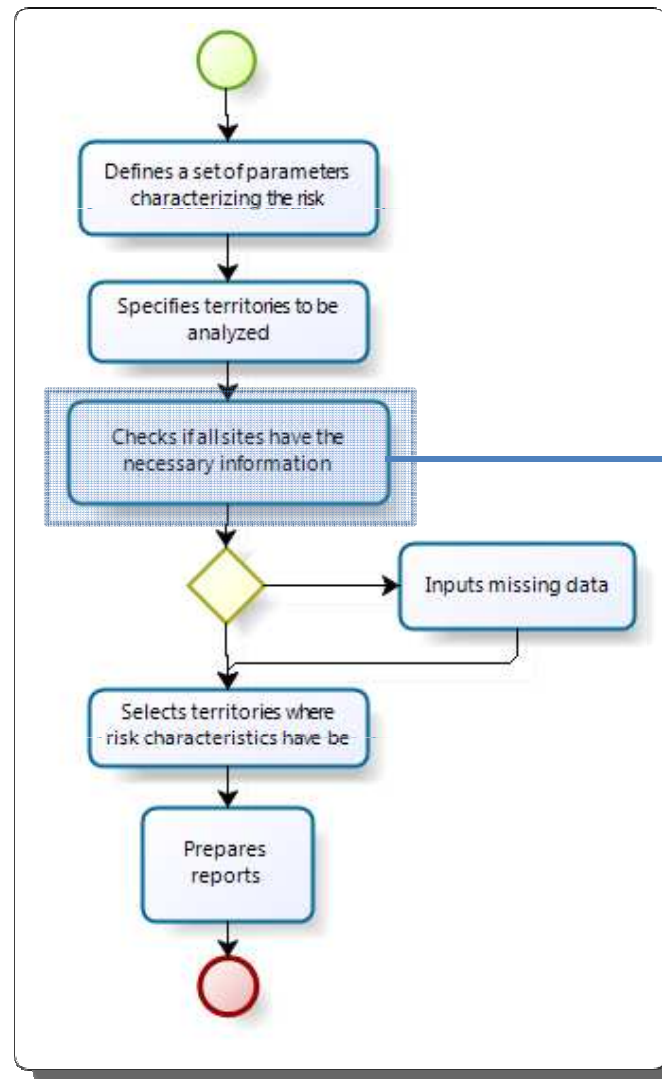
Risk module(1)



Risk module(2)

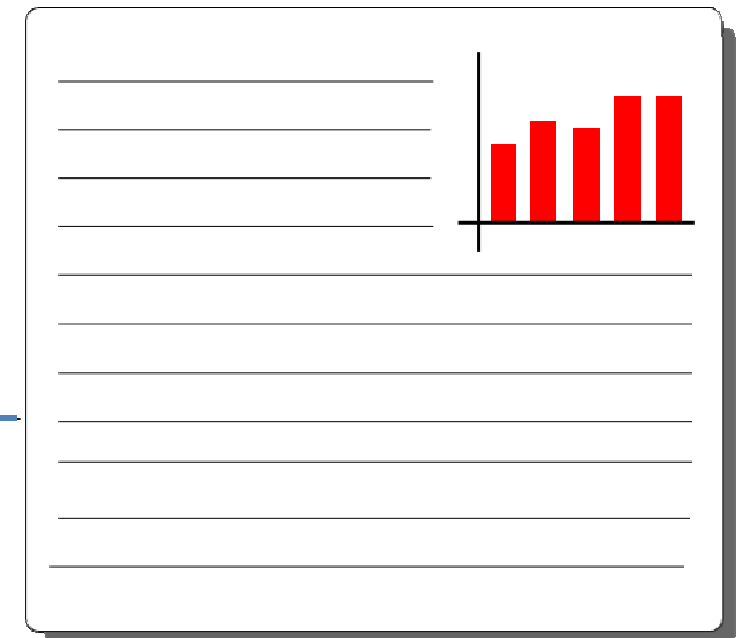
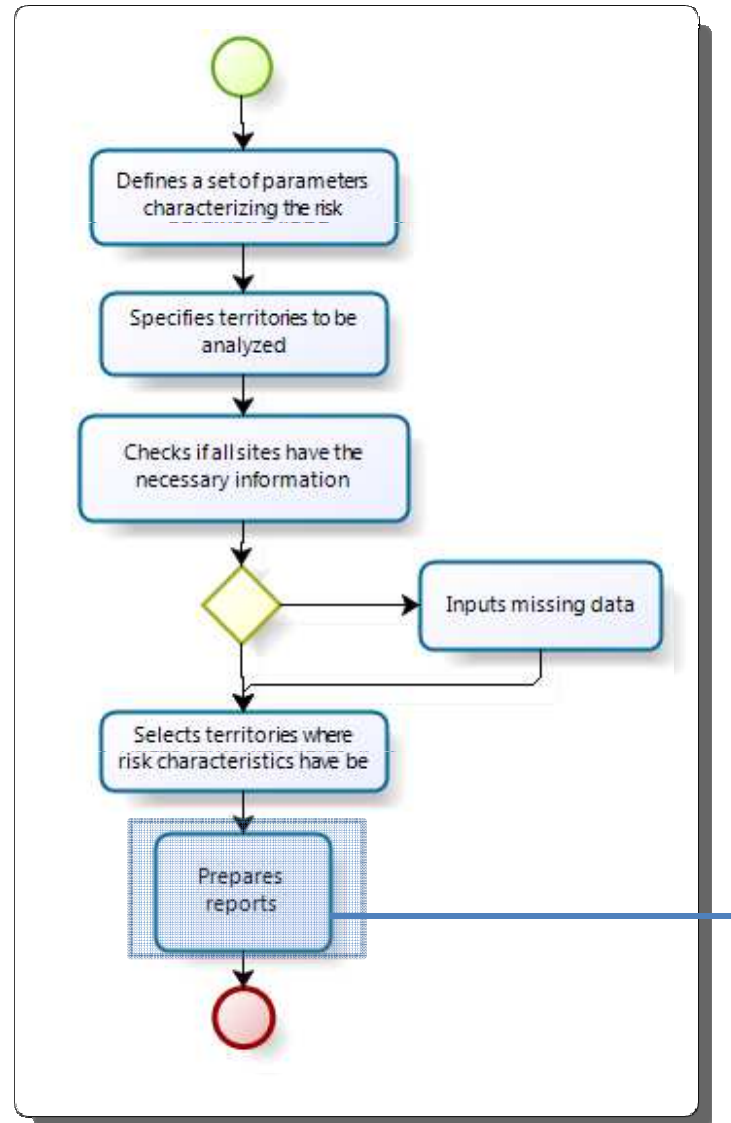


Risk module(3)



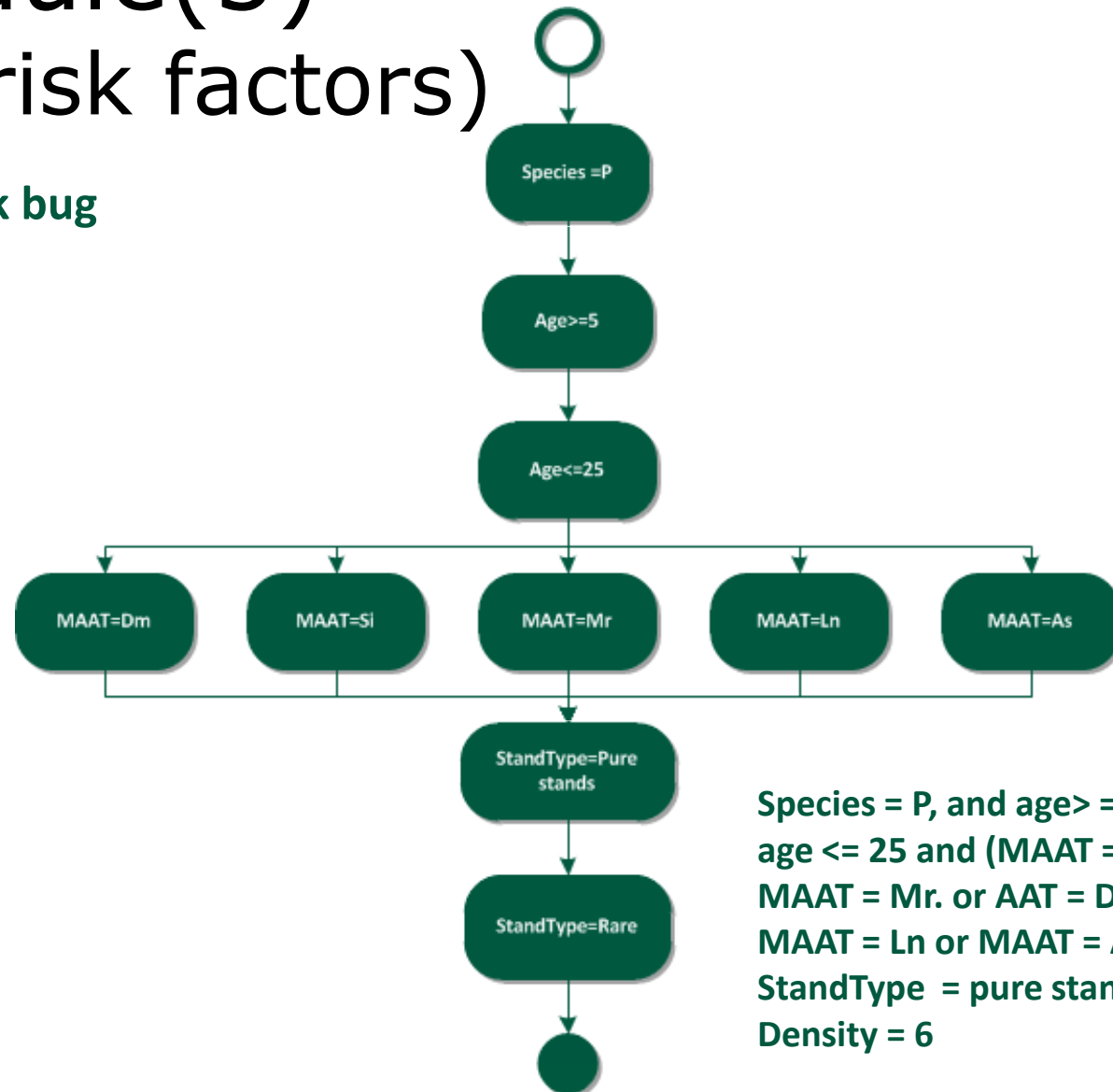
<input type="checkbox"/>	AAA	BBB	AAA	✗
<input type="checkbox"/>	AAA	BBB	AAA	✓
<input type="checkbox"/>	AAA	BBB	AAA	✓
<input type="checkbox"/>	AAA	BBB	AAA	✗
<input type="checkbox"/>	AAA	BBB	AAA	✓
<input type="checkbox"/>	AAA	BBB	AAA	✗

Risk module(4)



Risk module(5) (Definition of risk factors)

Pine bark bug



Species = P, and age >= 5 and age <= 25 and (MAAT = Sl or MAAT = Mr. or AAT = Dm or MAAT = Ln or MAAT = As) and StandType = pure stands and Density = 6

Thank you for attention!

IEGULDĪJUMS TAVĀ NĀKOTNĒ



ERAF

EIROPAS REĢIONĀLĀS
ATTĪSTĪBAS FONDS



EIROPAS SAVIENĪBA