



ESTONIAN DEVELOPMENT FUND



**Unlocking bio- economy sector in Lithuania**  
*VILNIUS, LITEXPO, 2015.09.04*

## **STEPS INTO THE BIOECONOMY**

### **ESTONIA– planning the strategy**

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ESTONIAN DEVELOPMENT FUND



Arengufond is a public institution subject to the Parliament whose aim is to contribute to the economic development of Estonia.

[www.arengufond.ee](http://www.arengufond.ee)

Bio - economy is the subject of various areas of government:

**Ministry of Agriculture,**

**Ministry of the Environment,**

**Ministry of Economic Affairs and Communications.**

**Estonian Development Fund - connector of interest groups and institutions.**

# BIOECONOMY STRATEGY - BUILD UP PROCESS

Initiator:	Ministry of Agriculture / 2014 October
Bio-economy opening conference:	Estonian Development Fund / 2015 February (interest group inputs)
Preliminary analyze:	Estonian Development Fund / March – July 2015 Value chains – accelerator design Existing strategy documents Resource utilization and targets
Opening of strategy negotiations:	latest January 2016



# **THE VALUE CHAIN MAPPING**

## BIOECONOMY SPAN



Scope:

- biological materials production, processing, consumption;
- services based on ecosystem (tourism).

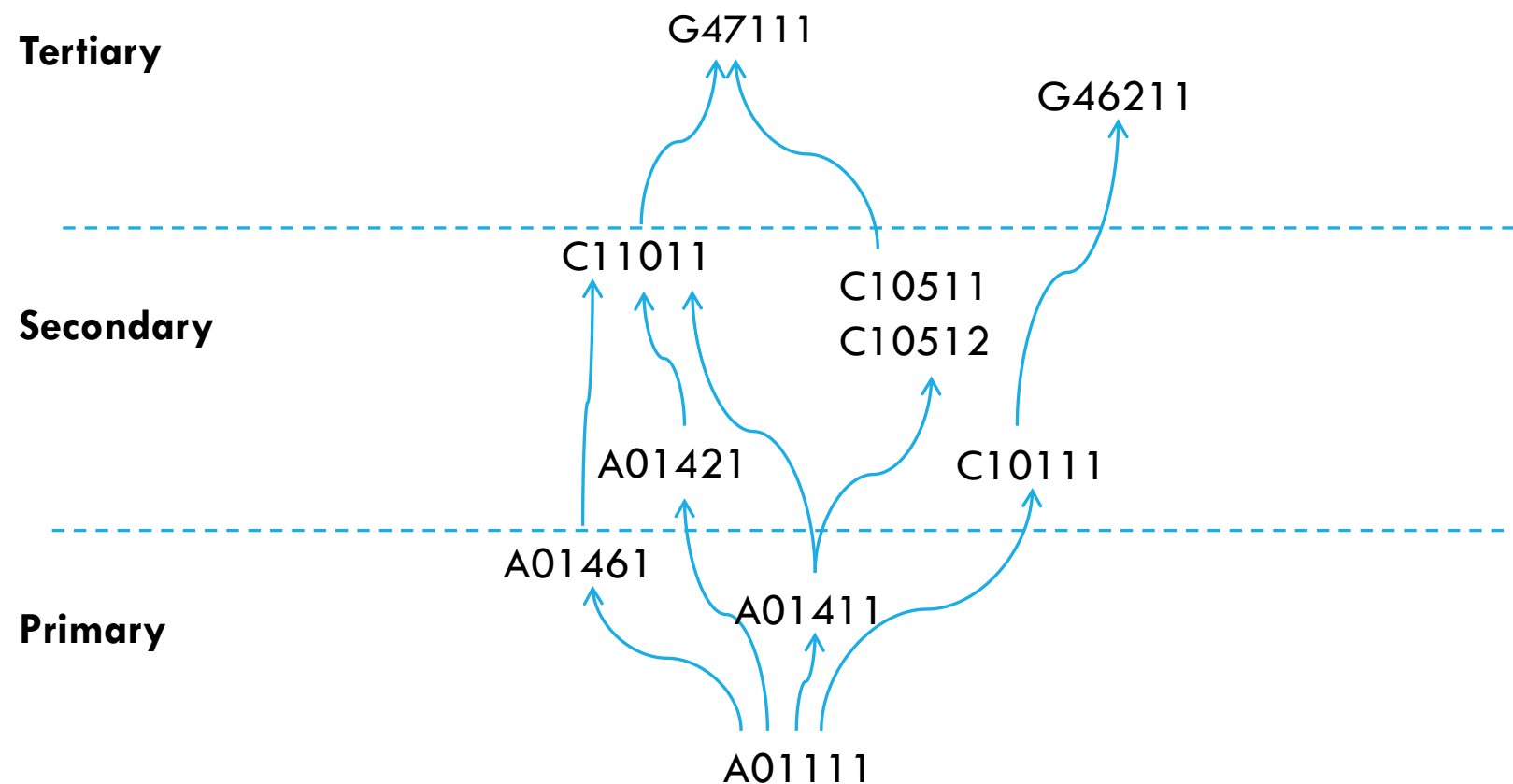
Out of 10,7 billion euro private sector GDP, 3,4 is generated in relation with biological resources.

One – third of private sector (business entities) economy in Estonia is in relation via value chains with agriculture, forestry, fishery products or ecosystem services.

# BIOECONOMY VALUE CHAIN

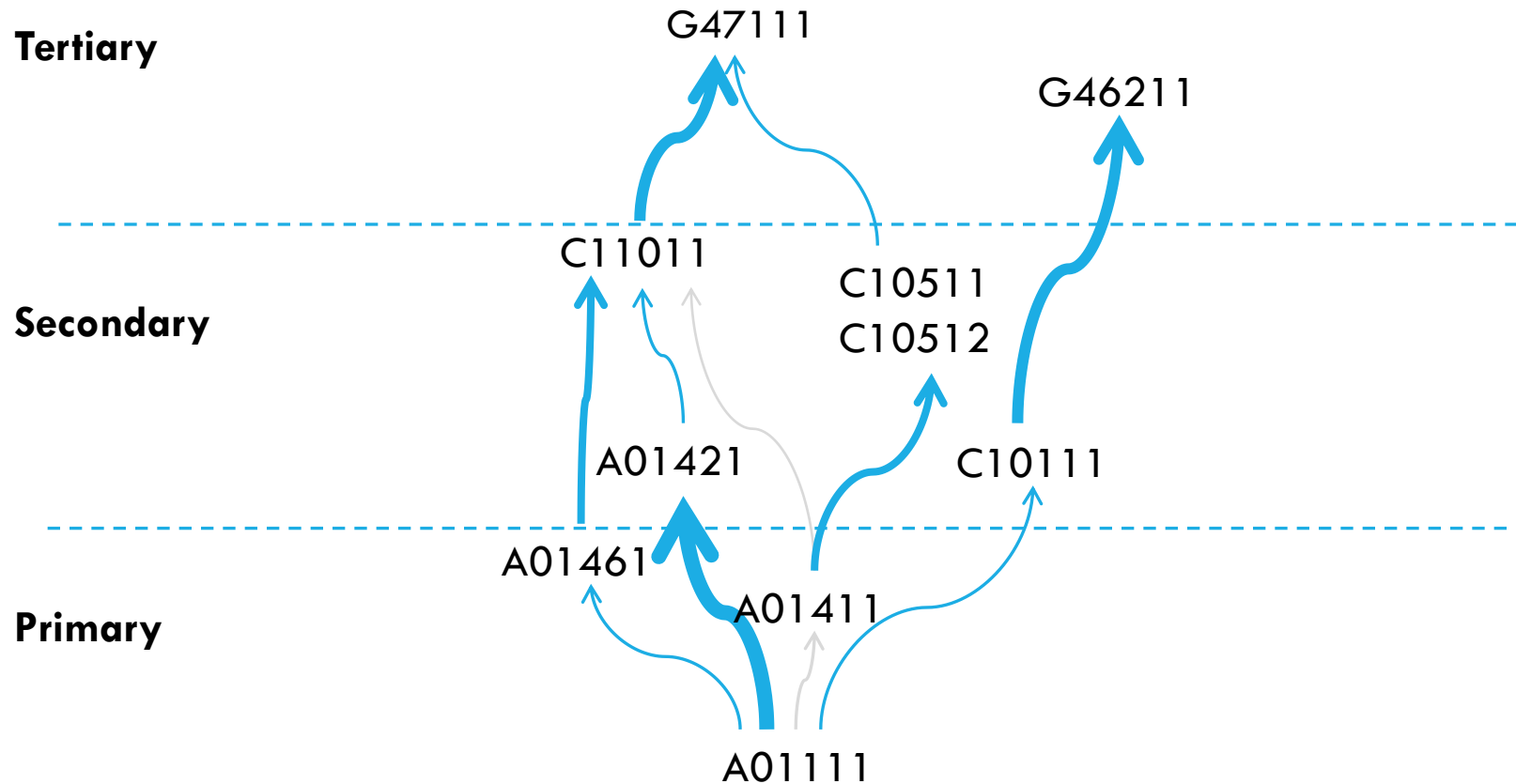
**EMTAK (NACE) activity classifier and value chain of biomass.**

**Data sources: Statistics Estonia, Commercial Register, Estonian Tax and Customs Board, PRIA, ...**



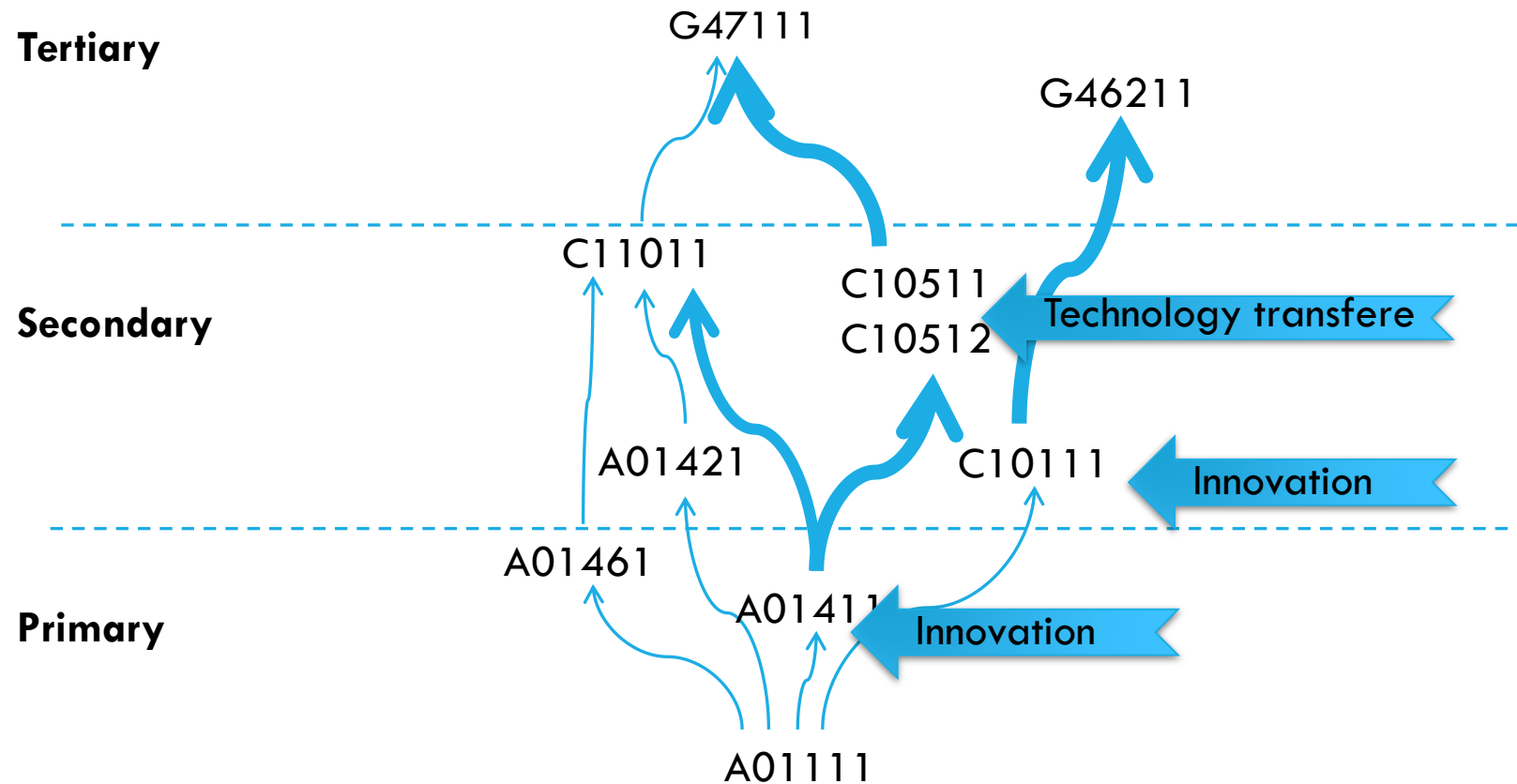
# VALUE CHAIN CRITERIAS

Depending on criteria (value of goods & services / added value / added value per labor unit etc...) value chain components could have different values.



# ACCELERATOR DESIGN

**Bio-economy mapping is the inevitable activity before precision design of the accelerator measures.**







# **GOVERNMENTAL POLICY**

# BIOECONOMY STRATEGY: WHERE TO FIT?

Aquaculture multi-year National Action Plan for 2014-2020

Inshore fisheries development and future prospects

Action plan for the sustainable use of pesticides for 2013-2017

The program "Protection of endangered fish species and restocking 2002-2010"

Action plan for crayfish (*Astacus astacus* L.) protection, resource recovery and use

Action plan: Climate change mitigation and climate change adaptation in agricultural sector for 2012 -2020

Eel management program

Marine Monitoring Program

Regional Development Strategy 2014-2020

Honey production and marketing development plan for 2013-2016

Development plan for the period 2014-2020 in the cereals sector

Fisheries Strategy 2014-2020

Organic Farming Development Plan for 2014-2020

Seed Sector Development plan for 2014-2020

Forestry Development Plan until 2020

Dairy Strategy 2012-2020

Aquaculture sector development strategy for 2014-2020

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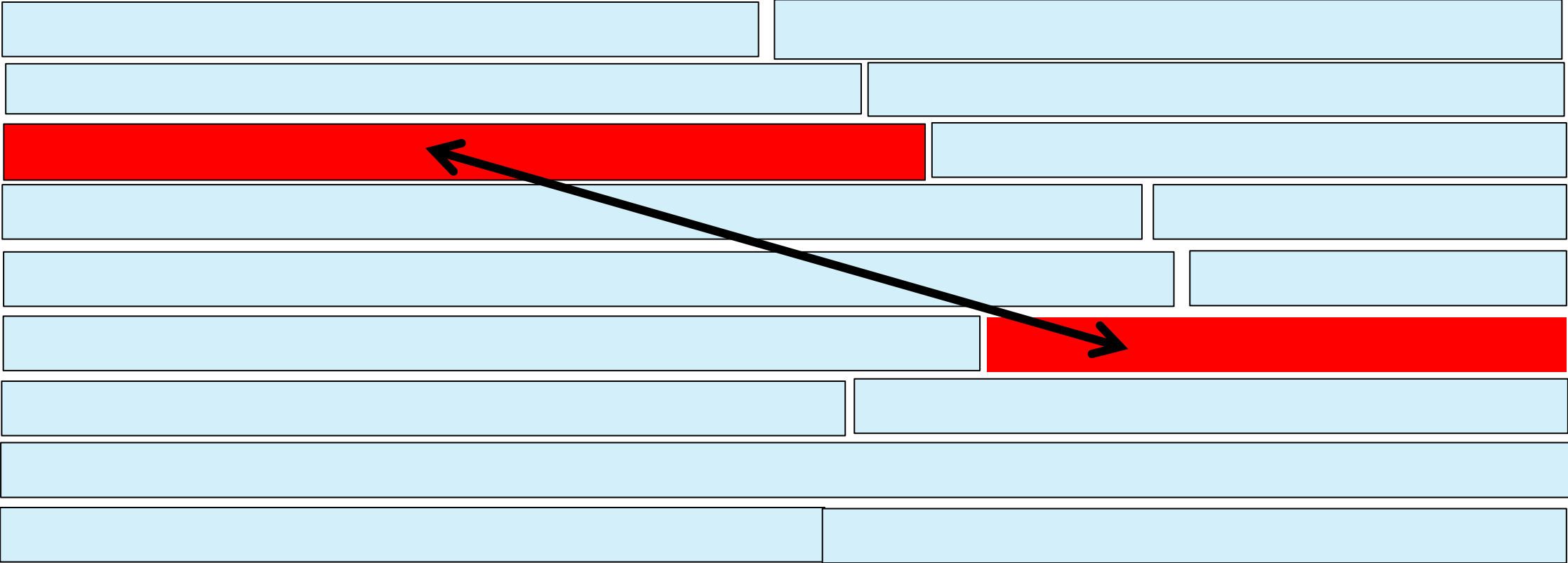
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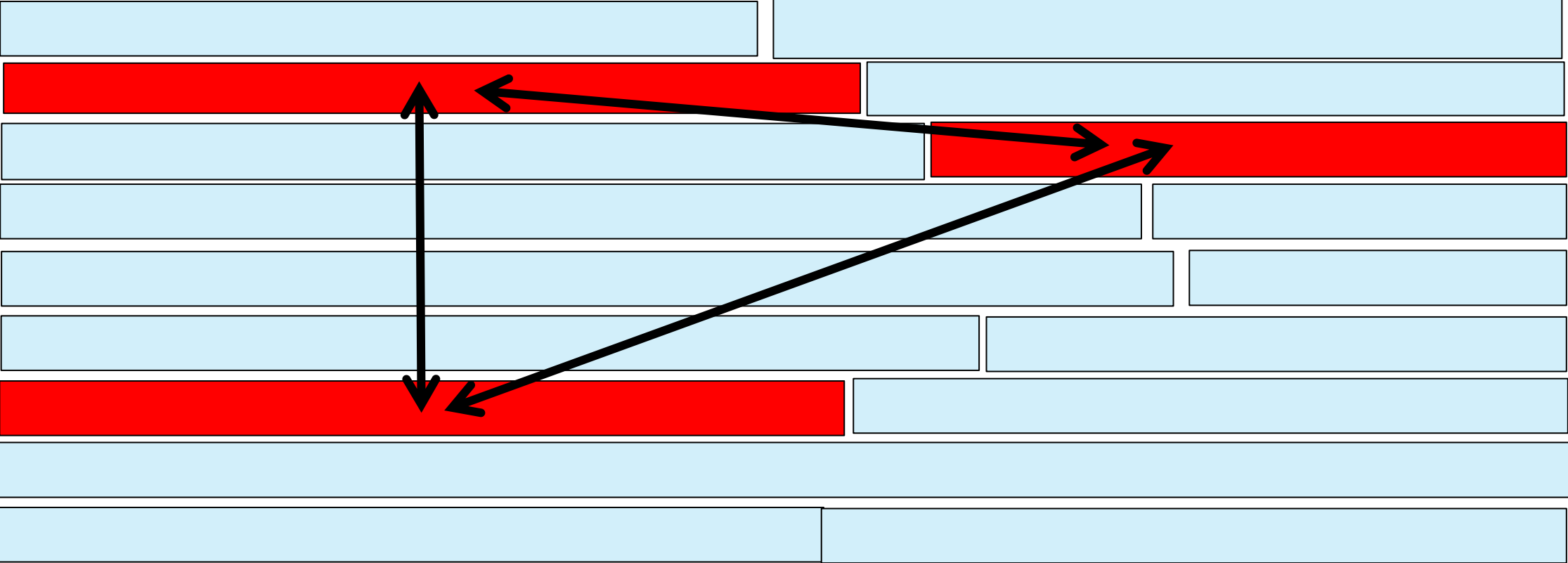
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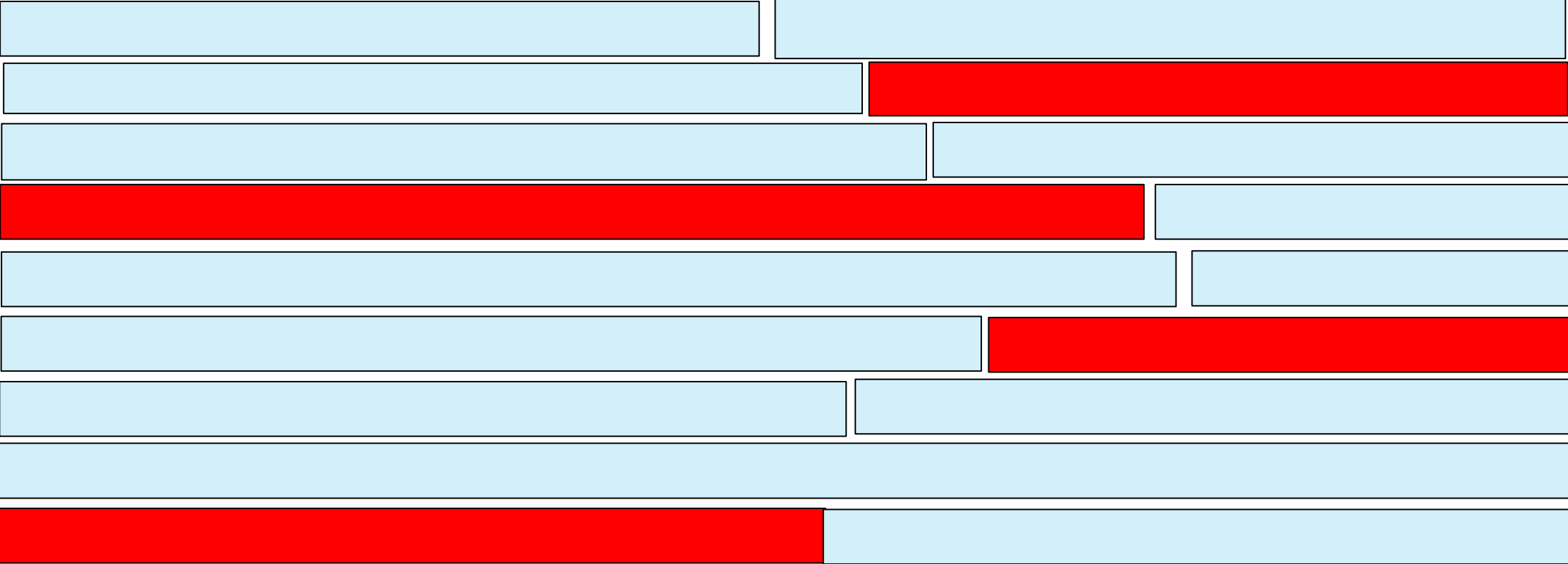
# FORMATING PROCESS: CONFLICTS



# FORMATING PROCESS: OVERLAPS



# FORMATING PROCESS: MISSING TARGETS





# FORMATING PROCESS: MISSING AT ALL

???	



# **RESOURCES AND TARGETS**

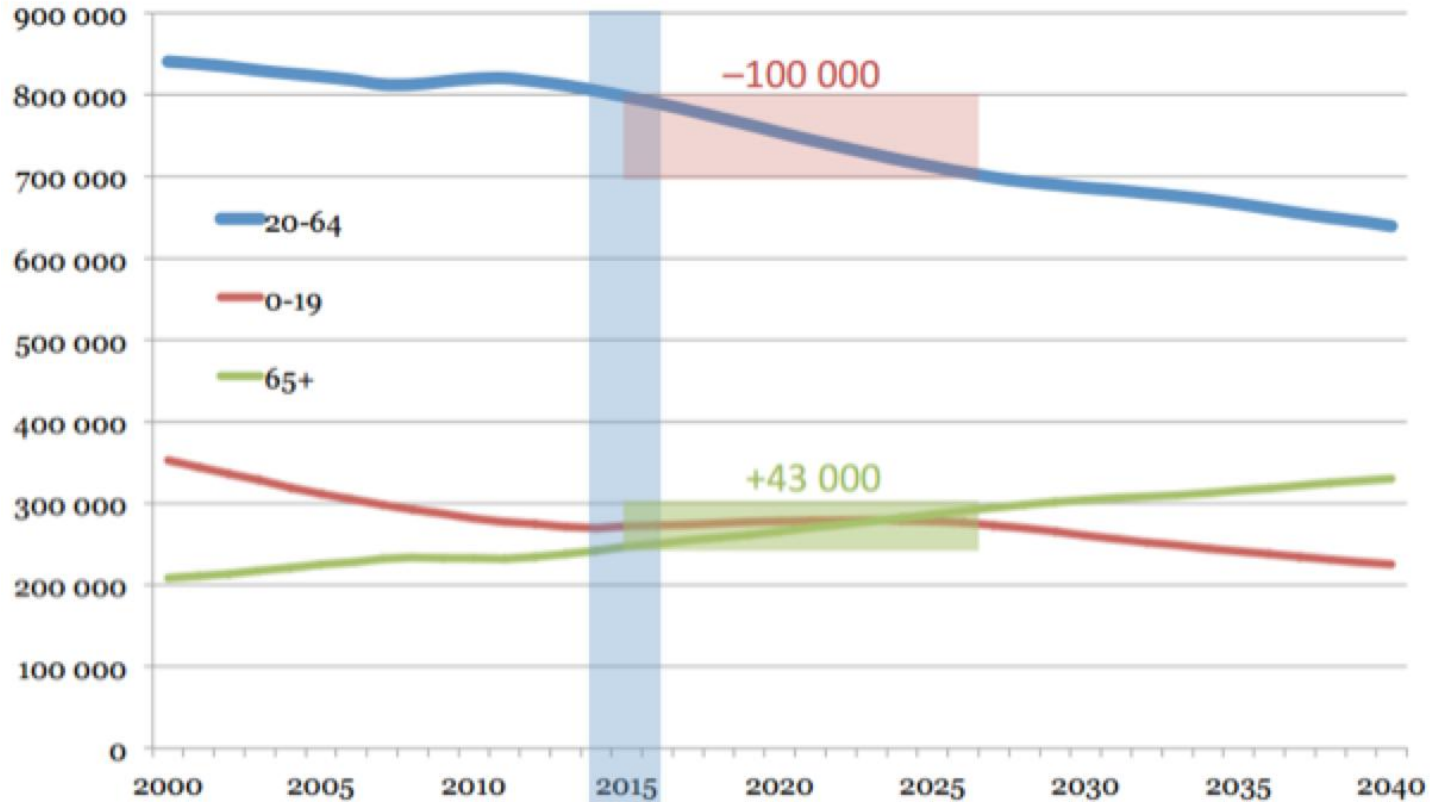


**60% area** (560 th ha) = **90% agricultural sales income**

**40% area** (375 th ha) = **10% agricultural sales income**

*Commercial Register and Estonian Tax and Customs Board data compared with land utilisation*

# DEMOGRAPHY



## Labor force projections:

2015 – 1,5 to 1 inactive

2025 – 1,2 to 1 inactive

2040 – 1,1 to 1 inactive

Running in Place (R.I.P) scenario: increasing labor productivity  $1,5 / 1,1 = 1,36$  times.

Economic growth scenario:

R.I.P. X growth rate = ???

**Base target: increase of the labor productivity**

# CONCLUSIONS

Bio-economy scope covers aprox. one – third of the business sector.

Value chain mapping is inevitable for precision design of accelerators.

Bio – economy strategy is formatting strategy and have to synchronize existing policies.

Change of the paradigm:

*“except of **workplaces** creation we need high value **processes**”*

# COOPERATION

ESTONIAN DEVELOPMENT FUND



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**Thank you for the attention!**

