

# **Introduction to Good Practice guides in the context of PLF**

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**Nofima** is the newly formed fusion of almost all Norwegian food research institutes (incorporating Akvaforsk, Matforsk, Norconserv and Fiskeriforskning) and covers all food sectors and links in the value chain.

**Nofima Market** is situated in Tromsø and carries out R&D work related to economics, marketing, logistics, rationalisation and traceability of food products.



## Underlying Good Practice principles

***“If you would understand anything, observe its beginning and its development.”***

**- Aristotle**

***“There is no history, only fictions of varying degrees of plausibility.”***

**- Voltaire**

***“Any fool can make history, but it takes a genius to write it.”***

**- Oscar Wilde**

# Good Manufacturing Practice

- Originated in the US around 100 years ago
- Tragedies ➡ Outrage ➡ Laws and Regulations
- 1905: Upton Sinclair “*The Jungle*” documented the unsanitary conditions in the Chicago meat packing business
- 1906: US passed the “Pure Food and Drug Act”
- Extended to: pharmaceutical ingredients and products, medical devices and foods
- GMPs are guidelines that outline the aspects of production and testing that can impact the safety and quality of a product

# GMP principles

- **Manufacturing processes are clearly defined and controlled**
- **Critical processes are validated to ensure compliance with specifications**
- **Instructions and procedures are written in clear and unambiguous language (GDP)**
- **Operators are trained to carry out and document procedures**
- **Records are made that demonstrate that all the steps required were in fact taken**
- **Records of manufacture (including distribution) that enable the complete history of a batch to be traced (and, if necessary, recalled) are retained**

# Good Agricultural Practices

- Developed gradually as part of GMP
- UN FAO defines GAP framework internationally
- FAO (2003): “*GAP are practices that address environmental, economic and social sustainability for on-farm processes, and result in safe and quality food and non-food agricultural products*”
- GAP pillar 1: economic stability
- GAP pillar 2: environmental sustainability
- GAP pillar 3: social acceptability
- GAP pillar 4: food safety and quality
- Separate GAPs related to soil, water, public health and animal production, health and welfare

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## GAP – Animal production, health and welfare

- Respect for animal well-being
- Avoid nontherapeutic mutilations
- Avoid negative impacts on landscape, environment, life
- Check stocks and flows, maintain structure of systems
- Prevent chemical and medical residues from entering the food chain
- Minimize non-therapeutic use of antibiotics or hormones
- Avoid feeding animals with animal wastes or animal matter
- Minimize transport of live animals
- Prevent waste run-off
- Apply traceability processes on the whole production chain

# Definition - ISO 8402

## **Traceability:**

***Ability to trace the history, application or location of an entity by means of recorded identifications.***

**In a product sense, it may relate to**

- the origin of materials and parts**
- the product processing history**
- the distribution and location of the product after delivery**

# Two types of traceability

## → Internal traceability

Your own data

## → Chain traceability

The data you get (and give)

### Traceability control mechanisms

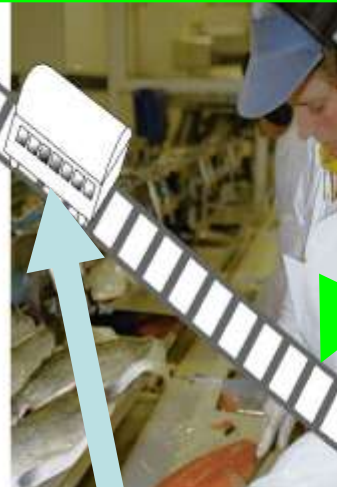
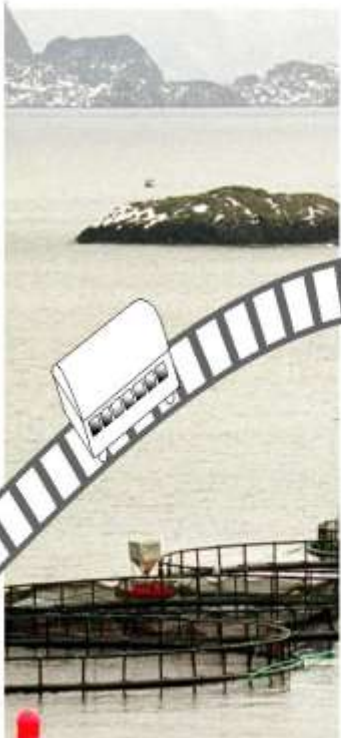
Methods and instruments used for authentication and testing that what we receive is what the documentation says.

# What traceability is and isn't:

- *Traceability does not refer to the (product) data itself*
- *There is no such thing as “traceability data”*
- *Traceability does not mean “ability to identify origin”; that is only part of traceability*
- *Traceability is the name of your systematic ability to access the data you have stored*
- *Traceable data elements are connected to identifiers, and traceable data elements are connected to each other*

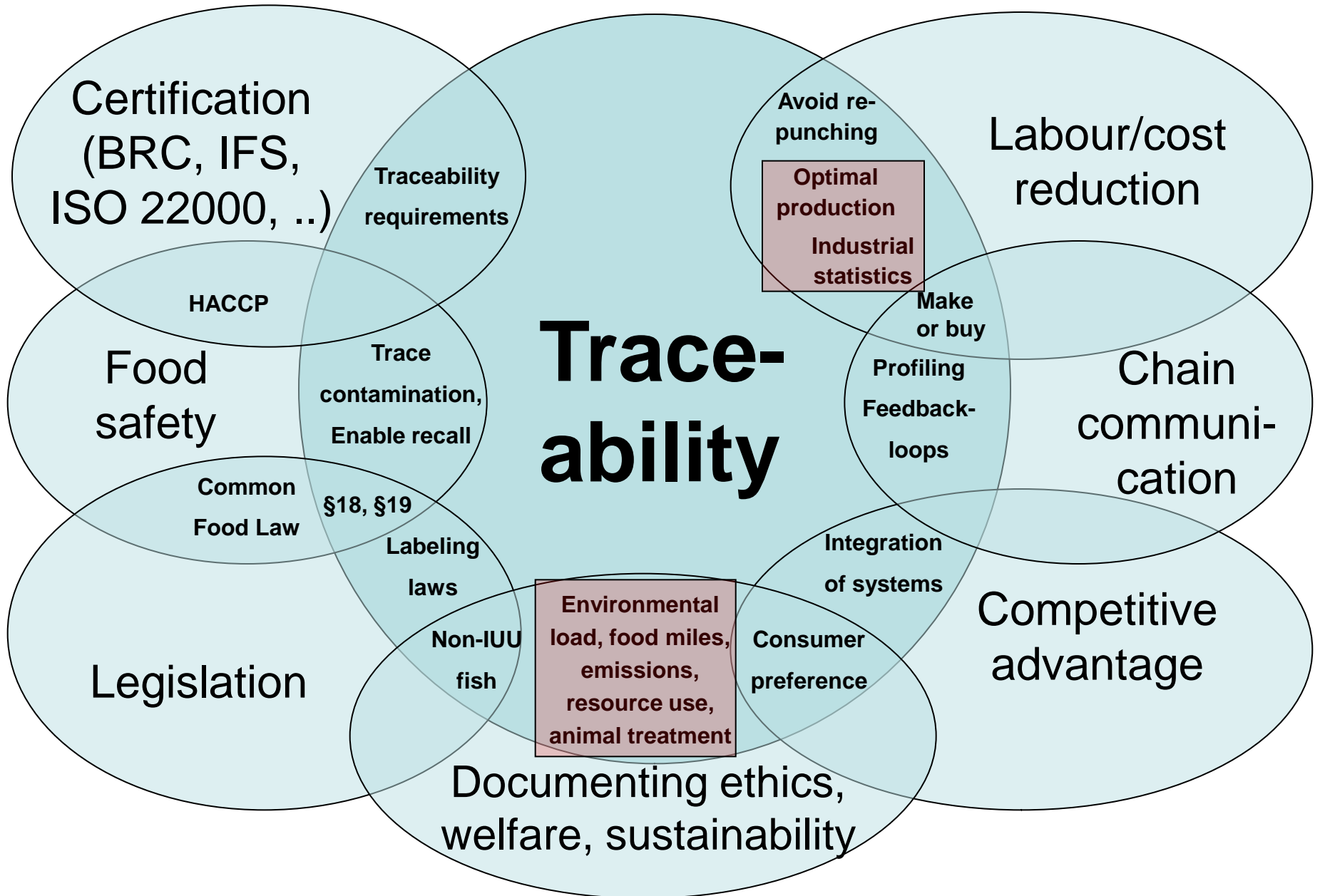
# Chain traceability visualization:

**This is the traceability  
'The ability to trace ...'**



**Information  
(systematic  
recordings)**

# Traceability drivers in the food sector:



# Good Traceability Practices

- Developed in EU traceability projects, in particular Seafood Plus and TRACE
- GTP is outlined at [www.tracefood.org](http://www.tracefood.org) common project resource where there's also a food traceability Wiki and an XML standard for Electronic Data Interchange
- Maintained mainly by food traceability projects in the EU and in Japan:
  - TRACEBACK, [www.traceback-ip.eu](http://www.traceback-ip.eu)
  - Chill-On, [www.chill-on.com](http://www.chill-on.com)
  - MainSafeTrace, [www.tracefood.org](http://www.tracefood.org)
  - Transparent\_Food, [www.transparentfood.eu](http://www.transparentfood.eu)
  - BrightAnimal, [www.brightanimal.eu](http://www.brightanimal.eu)



## Main Page

### The TraceFood Wiki

The TraceFood Wiki is open for anyone to comment and edit! Built on the TraceFood Framework we still remain true to our main objective: to make traceability through a whole supply chain possible, preferably in electronic form. The goal is to ensure that, food items and processes are identified in a uniform way, that a common electronic language is available for interchange of traceability information, and that a common Good Traceability Practice underlie all implementations.

In order to achieve this, we have created the TraceFood Wiki. We provide this wiki both as a help for people that wants to implement traceability in their business, but also as an arena where people can come together and discuss their different views and experiences on traceability. Our work has had the fund to build to move forward traceability from the current community working with traceability. With your help, TraceFood will grow to the international standard which will only be reached if we learn from the world's leading best practices on food traceability!

### Funding

The initial work of the framework was done in the EU projects TraceFish and SeafoodPlus funded by the European Commission under the fifth and sixth framework programmes. Currently, the TraceFood Framework and the TraceFood Wiki is being funded and developed through the EU funded project TRACE [\[E\]](#). Several other international projects and initiatives also support the framework. Guidelines and standards have been, and are being developed for numerous food sectors, including seafood, mineral water, honey, chicken, cereal and meat.



### Navigating

Here are some navigation tips for new and old users!

Are you new to traceability, and want to know more about it? Perhaps you want to know what traceability can do for your business?

- **Traceability** is the section to go for all your overview needs.

Have you decided to go into traceability and are unsure if you want to use TraceFood?

- **Fundamentals** will provide you with our underlying principles and basic definitions.

You have decided to implement traceability and are unsure if you should use TraceFood or GreatB? you are unsure of how you should be doing it?

- **Good Traceability Practice** will provide you with experiences from many combined case studies and examples of best practice from the industry.

You are in the process of implementing traceability and you want to learn how to share this information with your business partners?

- **Tools** contains information about concrete methods and electronic languages for exchange of information.

### Frequently asked questions

Get answers to some of your questions at the TraceFood FAQ!

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#### traceability projects

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- International projects
- Specific food branch projects

#### actor viewpoints

- Actor viewpoints
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- Operational
- Supply chain
- Quality Assurance
- Public authority
- ICT systems

#### traceability references

- Laws and regulations
- Literature
- Standards
- Industrial systems and

[www.tracefood.org](http://www.tracefood.org)



## GTP

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  - 1.1 Generic GTP
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## Recommendations for Good Traceability Practice in the food industry

This section will present the recommendations for good traceability practice in the industry. The practices are a result from input and knowledge gained from many research projects, industrial projects, and other national and international projects and practices.

### Generic GTP

- Guide to implementing internal traceability
- Guide to implementing chain traceability
- Guide to adapting electronic exchange of traceability information

### Sector Specific GTP's

- Implementing traceability in the **seafood sector**.
- Implementing traceability in the mineral water sector.
- Implementing traceability in the honey sector.
- Implementing traceability in the chicken sector.

### Relevant references for GTP

- Food Marketing Research and Information Center (FMRIC). *Handbook for Introduction of Food Traceability Systems*. Japan 2008. [url](#) [pdf](#)

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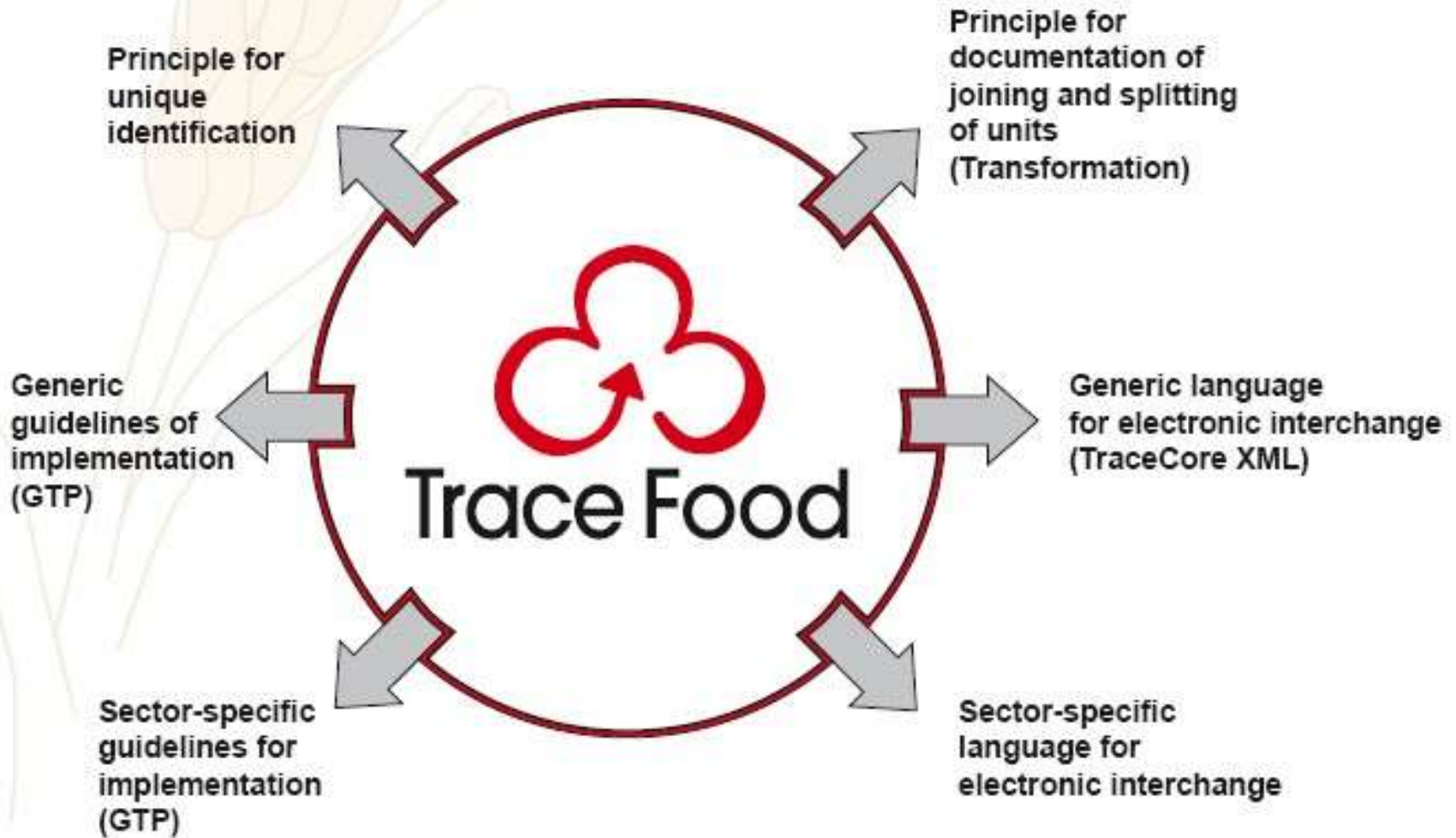
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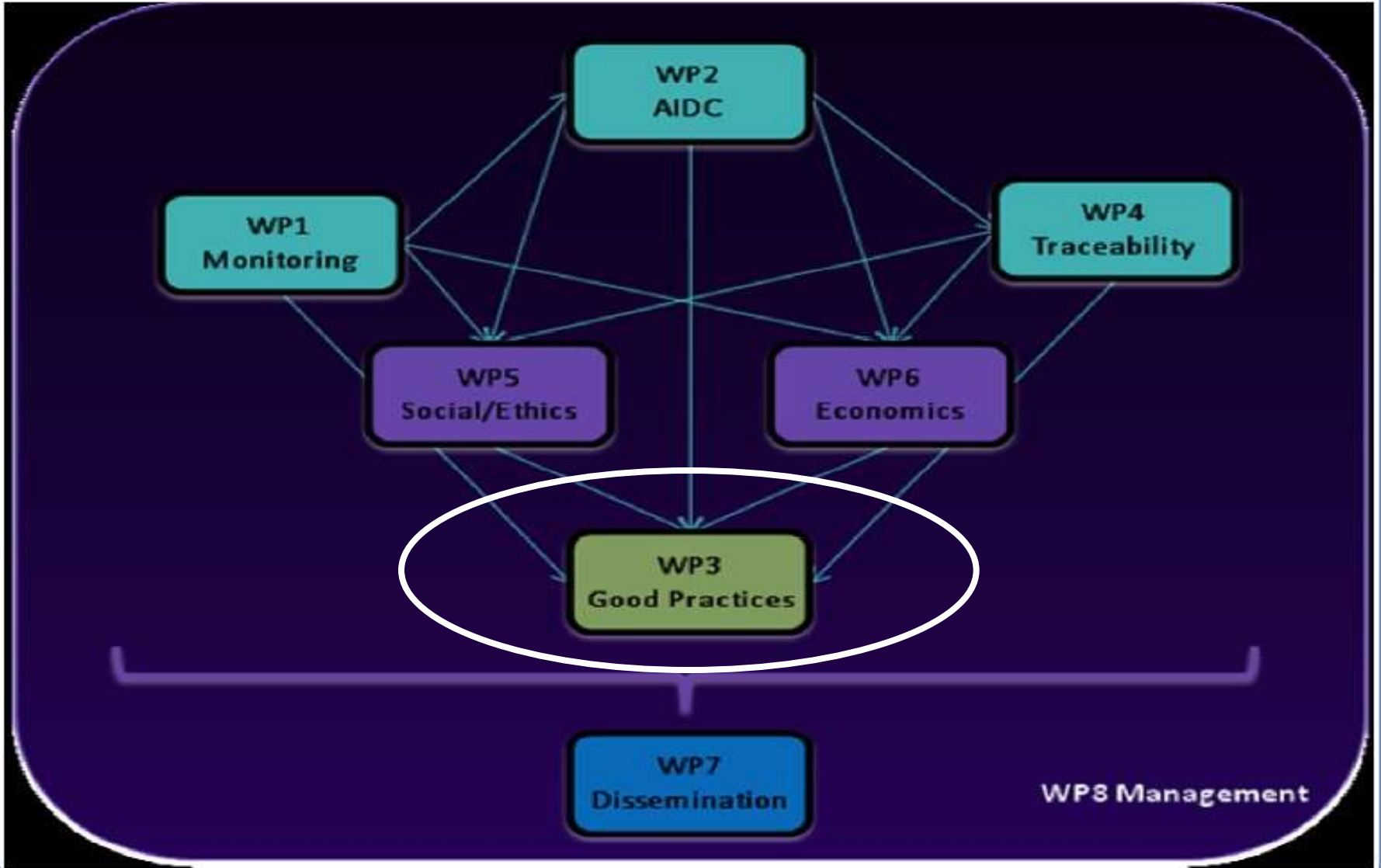
# www.tracefood.org

# The TraceFood Framework



**The TraceFood framework components**

# BrightAnimal – "Good PLF practice"



# BrightAnimal GPLFP activities

- To review existing Good Practices relevant for PLF
- To lead a cross-disciplinary discussion about Good Practices in Precision Livestock Farming
- To receive input from the other WPs and represent them in the form of a recommendation for good practices on Precision Livestock Farming
- To produce Good Precision Livestock Practices for specified animals
- To make GPLFP compatible with GMP, GAP and GTP
- To represent and make the Good Practices available in the Wiki
- To contribute to the creation of an international network of relevant players in this area and interact with relevant stakeholders, especially from ICPC countries
- To disseminate in a practical hands-on form recommended good practices to SMEs, to help stakeholders understand more easily the benefits of PLF

***Input into this process is welcome***

# Thank you for your attention

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