

# Backend

An enterprise system solution for connecting Eurocom and Asolutions API.

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# Technology Impact Cycle Tool

Backend

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## Impact on society

What impact is expected from your technology?

## What is exactly the problem? Is it really a problem? Are you sure?

Solving the connection between various IT systems.

## Are you sure that this technology is solving the RIGHT problem?

It is solving the problem by simplifying the information flow.

## How is this technology going to solve the problem?

The solution is grounded in theory.

## What negative effects do you expect from this technology?

Little to none.

## In what way is this technology contributing to a world you want to live in?

This technology will simplify the work of caregivers, therefore creating a better environment for people living with diseases.

## Now that you have thought hard about the impact of this technology on society (by filling out the questions above), what improvements would you like to make to the technology? List them below.

There could be improvements in the overall design of the application to increase the efficiency of information flow.

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## Hateful and criminal actors

What can bad actors do with your technology?

### In which way can the technology be used to break the law or avoid the consequences of breaking the law?

It can be used to access private information by unauthorized parties.

### Can fakers, thieves or scammers abuse the technology?

Unlikely.

### Can the technology be used against certain (ethnic) groups or (social) classes?

Not really as the database doesn't contain data relevant to race or social status.

### In which way can bad actors use this technology to pit certain groups against each other? These groups can be, but are not constrained to, ethnic, social, political or religious groups.

I see feasible way.

### How could bad actors use this technology to subvert or attack the truth?

They could modify personal health info.

### Now that you have thought hard about how bad actors can impact this technology, what improvements would you like to make? List them below.

Not right now.

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## Privacy

Are you considering the privacy & personal data of the users of your technology?

### Does the technology register personal data? If yes, what personal data?

Personal healthcare related data.

### Do you think the technology invades the privacy of the stakeholders? If yes, in what way?

It doesn't.

### Is the technology is compliant with prevailing privacy and data protection law? Can you indicate why?

It is compliant to the extent as the system it provides integration support to.

### Does the technology mitigate privacy and data protection risks/concerns (privacy by design)? Please indicate how.

The technology doesn't store private data.

### In which way can you imagine a future impact of the collection of personal data?

The data collected and generated won't impact the freedoms and reputation of individuals.

### Now that you have thought hard about privacy and data protection, what improvements would you like to make? List them below.

Nothing

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## Human values

How does the technology affect your human values?

### How is the identity of the (intended) users affected by the technology?

The technology could expose the health information of individuals.

### How does the technology influence the users' autonomy?

The user relinquishes their control of their medical data to a certain extent.

### What is the effect of the technology on the health and/or well-being of users?

The technology is very important to the health of the patients the caretakers provide care for.

### Now that you have thought hard about the impact of your technology on human values, what improvements would you like to make to the technology? List them below.

Improving data accuracy to improve patient health.

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## Stakeholders

Have you considered all stakeholders?

*This category is only partial filled.*

**Who are the main users/targetgroups/stakeholders for this technology? Think about the intended context by answering these questions.**

**Name of the stakeholder**

Eurocom

**How is this stakeholder affected?**

The client for the project

**Did you consult the stakeholder?**

Yes

**Are you going to take this stakeholder into account?**

Yes

**Name of the stakeholder**

Fontys

**How is this stakeholder affected?**

The university provides the materials to this project.

**Did you consult the stakeholder?**

Yes

**Are you going to take this stakeholder into account?**

Yes

**Did you consider all stakeholders, even the ones that might not be a user or target group, but still might be of interest?**

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**Now that you have thought hard about all stakeholders, what improvements would you like to make? List them below.**

*This question has not been answered yet.*

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## Data

Is data in your technology properly used?

*This category is only partial filled.*

**Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into account in the technology?**

Yes, we try to take it into considerations.

**How does the technology organize continuous improvement when it comes to the use of data?**

We try to design the application in a way that takes these facts into considerations.

**How will the technology keep the insights that it identifies with data sustainable over time?**

The data is only available as long as it is stored in the main systems.

**In what way do you consider the fact that data is collected from the users?**

Our application doesn't collect user data.

**Now that you have thought hard about the impact of data on this technology, what improvements would you like to make? List them below.**

*This question has not been answered yet.*

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## Inclusivity

Is your technology fair for everyone?

### Will everyone have access to the technology?

Only Eurocom will have access.

### Does this technology have a built-in bias?

No.

### Does this technology make automatic decisions and how do you account for them?

It doesn't make automatic decisions.

### Is everyone benefitting from the technology or only a a small group?

#### Do you see this as a problem? Why/why not?

Only people with certain medical issues and their caregivers will benefit.

### Does the team that creates the technology represent the diversity of our society?

Yes, the group is pretty diverse.

### Now that you have thought hard about the inclusivity of the technology, what improvements would you like to make? List them below.

The inclusivity is at an acceptable level.



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## Transparency

Are you transparent about how your technology works?

*This category is only partial filled.*

**Is it explained to the users/stakeholders how the technology works and how the business model works?**

It will be explained.

**If the technology makes an (algorithmic) decision, is it explained to the users/stakeholders how the decision was reached?**

At this point, we don't have plans for algorithmic decision making.

**Is it possible to file a complaint or ask questions/get answers about this technology?**

It should be possible.

**Is the technology (company) clear about possible negative consequences or shortcomings of the technology?**

We have no information on that at the mmoment.

**Now that you have thought hard about the transparency of this technology, what improvements would you like to make? List them below.**

*This question has not been answered yet.*

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## Sustainability

Is your technology environmentally sustainable?

**In what way is the direct and indirect energy use of this technology taken into account?**

Minimal to none.

**Do you think alternative materials could have been considered in the technology?**

No

**Do you think the lifespan of the technology is realistic?**

Yes

**What is the hidden impact of the technology in the whole chain?**

The hidden impact could be the optimization of the data flow between system, therefore reducing the energy requirements of the computing systems.

**Now that you have thought hard about the sustainability of this technology, what improvements would you like to make? List them below.**

No suggestions at this time

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## Future

Did you consider future impact?

**What could possibly happen with this technology in the future?**

It will be replaced by another system.

**Sketch a or some future scenario (s) (20-50 years up front) regarding the technology with the help of storytelling. Start with at least one utopian scenario.**

The automation will help extend better healthcare to everyone.

**Sketch a or some future scenario (s) (20-50 years up front) regarding the technology with the help of storytelling. Start with at least one dystopian scenario.**

The tech wont even be implemented.

**Would you like to live in one of this scenario's? Why? Why not?**

I'm not sure.

**What happens if the technology (which you have thought of as ethically well-considered) is bought or taken over by another party?**

Probably gets decomissioned.

**Impact Improvement: Now that you have thought hard about the future impact of the technology, what improvements would you like to make? List them below.**

Nothing at the time.