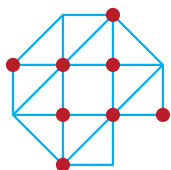
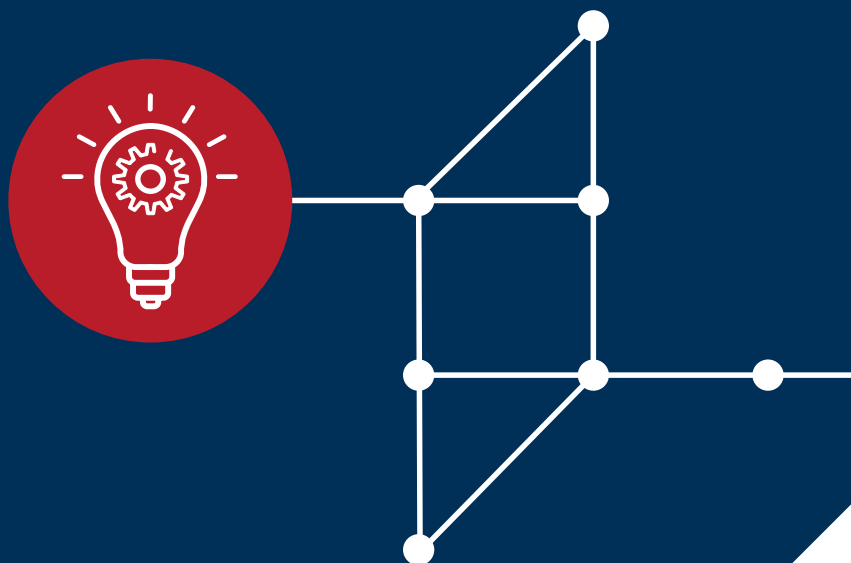


# Findings Report

Zone Acceleration of Educational  
Innovation with EdTech



**Acceleration plan**  
Educational innovation  
with ICT





# Findings Report

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Innovation with EdTech

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## 1. Introduction and background

Developments in educational technology (EdTech) have been key accelerators of innovation in teaching and learning in recent decades. With the overall aim of making optimum use of the possibilities that EdTech offers, it is the ambition of the 'Acceleration of Educational Innovation with EdTech' Zone ('EdTech Zone') to make the Netherlands a fruitful breeding ground, and preferably a leading European beachhead, for fledgling EdTech providers and their educational innovations.

At the moment, the adoption and scale-up rate of EdTech within higher education institutions is relatively low compared to other sectors (e.g. FinTech and MedTech). The reasons for this are numerous. To change this situation and to be able to create strategies that foster effective innovation with EdTech, we need a thorough understanding of the barriers experienced by both the higher education institutions and the EdTech providers. This understanding will provide a strong starting point for the development of such strategies.

The EdTech Zone therefore decided to perform an initial inventory of the barriers experienced by both sides when pursuing educational innovation with EdTech. This report is the outcome of this initial step. Based on the inventory of the barriers identified, the next step will be to gather, develop and share best practices to overcome these barriers.

## 2. Goal and approach

In order to create this inventory, members of the EdTech Zone conducted workshops with the participating higher education institutions<sup>i</sup> and a selection of (Dutch) EdTech providers that are beyond their start-up phase<sup>ii</sup>. This report provides an overview of the results of these workshops.

The workshops were conducted in April, May and June 2020.

## 3. Higher Education institutions

During the workshops with the participating higher education institutions, a wide variety of barriers were identified relating to educational innovation with EdTech. In the first section of this report, we discuss barriers that were reported by all the participating institutions and prioritised by participants as having the highest impact. These barriers can therefore be considered the main barriers to educational innovation with EdTech innovation. In the second section, we discuss barriers that were reported by more than one participating institution, but not by all participating institutions. They do, however, provide useful insights into and additional context on the main barriers discussed in the first section.

<sup>i</sup> TU Delft, Leiden University, Wageningen University & Research, Fontys University of Applied Sciences, Amsterdam University of Applied Sciences and Inholland University of Applied Sciences.

<sup>ii</sup> FeedbackFruits, Drieam, Grasple, Codegrade, Xebic, Shareworks and Ans Delft. These EdTech providers have been selected based on the following criteria: 1) their products focus mainly on the 'primary' process of education (in other words, the actual process of teaching and learning); 2) they focus their efforts mainly on the educational sector; 3) their companies are beyond their start-up phase. We would also like to emphasise that we acknowledge that other companies could have qualified as well, but to keep the effort manageable we decided to limit the number of companies invited to the workshops to the ones listed above. Moreover, it was not the intention of the EdTech Zone to apply a scientific approach to these workshops.

It is important to state that the participants of the workshops at the higher education institutions were employees whose primary focus (or at least a large part of their focus) is on realising and supporting educational innovation with EdTech within their respective institution<sup>iii</sup>. The barriers referred to below are barriers as perceived and experienced by these participants.

### 3.1 Main barriers to educational innovation with EdTech

#### 3.1.1 Processes

During the workshops, participants reported a lack of clear, well-defined processes as an important barrier to educational innovation with EdTech. Participants indicated that they experience this lack of clear processes at several crucial points in the cycle.

#### Main point of contact

Many participants reported that it was often unclear which person or organisational unit was the main point of contact for educational innovation with EdTech initiatives. For instance, who should a teacher contact if he/she wanted to start an experiment or pilot using EdTech? As one of the participants said: "It is hard to find the right person within our organisation. If teachers happen to know the right person, they can get the support they need, but I am pretty sure most of them are not even aware of this helping hand."

#### Experiment/pilot

Even if a teacher had found the main point of contact for educational innovation with EdTech initiatives, participants reported that there is often a lack of clarity about the process that needs to be followed in order to be able to start an experiment or pilot with EdTech. Which people should be involved? What is required in terms of compliance with technical and legal rules and regulations? Where will the budget come from? Who will decide whether an experiment or pilot will be funded or not, and based on what criteria?

<sup>iii</sup> In total, 61 participants with the following roles: Innovation Consultants, Learning and Innovation Officers, Instructional Designers, ICTO Coordinators, Educational Advisors, Information Managers, Trainers, Learning Developers, Heads of Education Support, Teaching Support Officers, IT Developers, Architects, Project Managers/Team Leads Innovation Projects and, to a lesser extent, Teachers.

### Scaling up

Participants indicated that after an experiment or pilot with EdTech has been executed, a marked lack of clarity emerges in the process of scaling up. Once again, the same questions arose: which people should be involved in the process of scaling up? What is required in terms of compliance with technical and legal rules and regulations? Where will the budget come from? What is the decision-making process, and on what criteria will the decision to scale up (or not) be based?

Likewise, participants reported that the lack of a clear framework for evaluating the success or added value of an experiment or pilot with EdTech further complicates the decision-making process with regard to scaling up.

During the workshops, some participants qualified the foregoing by indicating that there is not always a (total) lack of process, and that at least some processes are actually in place at their respective institutions. However, in these cases, many participants (from the same institution) claimed that they were unaware of these to a lesser or greater extent.

#### 3.1.2 Dedicated budget, resources and facilities

Participants told us that the lack of dedicated budget, resources and facilities was an important barrier to effective innovation with EdTech. Participants reported that having no dedicated budget means that funding for all EdTech initiatives has to be secured on an ad hoc basis, and this can therefore be time-consuming and unpredictable. Furthermore, participants noted that budget is often only allocated for temporary projects and that the accompanying 'sense of temporariness' can obstruct structural innovation.

Participants reported that the yearly budget cycle, which is still prevalent among higher education institutions, complicates matters further. For instance, requests for funding often have to be made before the yearly budget rounds have been concluded, at the risk of having to wait another year to secure funding for the experiment, pilot or scaling up initiative for EdTech.

Participants also told us that securing funding itself is not always enough, and that many EdTech initiatives have stalled due to the lack of availability of employees who play key roles in the process of educational innovation with EdTech. One of the participants noted: "The experts we need are simply not there from the get-go. Sometimes you can include their input along the way, but often their contributions come in too late".

#### 3.1.3 Vision and strategy

Although the topics above are important, participants indicated that decisions on processes and resources should be informed by a clear, institution-wide vision and strategy for educational innovation with EdTech. Participants also told us that they currently experience a lack of vision and strategy concerning educational innovation with EdTech within their respective institutions.

Participants noted that this lack of a clear, institution-wide vision and strategy often leads to a situation where efforts towards educational innovation with EdTech were reactive and ad hoc, rather than proactive and strategic. Participants told us that this lack of vision and strategy often resulted in difficulties with prioritising efforts and resources for educational innovation with EdTech.

As is the case with the lack of processes described earlier, some participants qualified this observation by pointing out that the lack of strategy and vision is not always total, and that some sort of vision and strategy was in place at their respective institution. However, in these cases many participants (from the same institution) claimed they were unaware of this to a lesser or greater extent.

Participants reported the additional complicating factor that even if a vision and strategy on educational innovation with EdTech was in place, often other – sometimes conflicting – strategies could be found within the institution, for example, within another domain or organisational unit. Participants indicated that as a result of this, educational innovation initiatives involving EdTech were at risk of being 'undermined' by these conflicting strategies.

### 3.2 Additional insights

#### 3.2.1 Innovative mindset or culture

Participants referred to the lack of an innovative mindset or culture within their institution as a barrier to effective innovation with EdTech. While they noted that this was hard to define, participants did report that they experience significant variation amongst different stakeholders in their basic attitude towards the concept of innovation and, for example, their risk appetite. As one of the participants put it: "A lot of people working in higher education still have a traditional approach to ICT and education. They tend to think that a new tool will make their lives easier, but innovative education is and should be more than that. A cultural shift towards innovative *thinking* is highly desirable."

### 3.2.2 Overview of available EdTech within the institutions

Participants also spoke of the lack of an adequate overview of approved and already available EdTech solutions within their institution as a barrier to effective innovation with EdTech. They noted that this lacking overview could be a source of contention amongst various stakeholders involved in the process of educational innovation with EdTech (e.g. “don’t we already have a tool that provides this functionality?”). This could then lead to substantial delays in the decision-making process required for commencement of an experiment, pilot or scaling-up initiative in the use of EdTech.

### 3.2.3 Procurement and tender procedures

Participants reported that the current rules and regulations on procurement and tender procedures (and the financial constraints experienced as a result of these) are perceived as a barrier to educational innovation with EdTech. They noted that these financial constraints were felt mainly in the process of scaling-up of efforts in EdTech initiatives. For example, if the decision was made to scale up EdTech efforts institution-wide following initial experiments or pilots, tender procedures would often come into play. These tender procedures are perceived as time-consuming, costly and (due to the nature of the process) unpredictable.

## 4. EdTech providers

The first section below discusses barriers reported by all the participating EdTech providers and prioritised by participants as having the highest impact. These barriers can therefore be considered the main barriers to educational innovation with EdTech. The second section discusses barriers mentioned by more than one participating EdTech provider, but not by all providers. These do, however, provide interesting insights into and additional context on the main barriers discussed in the first section.

### 4.1 Main barriers to educational innovation with EdTech

#### 4.1.1 Processes

Workshop participants referred to a lack of clarity on the processes as being an important barrier to effective innovation with EdTech. In common with participants from the higher education institutions, participants from EdTech providers said that this lack of clarity on the processes was experienced at several points in the cycle.

### Finding the open door

Participants reported that it was often unclear which person or organisational unit was the main point of contact for educational innovation initiatives involving EdTech. In other words, participants noted that it could be challenging to ‘find the open door’ within higher education institutions.

### Experiment/pilot

Participants reported that once they had ‘found the open door’ and wanted to proceed with an experiment or pilot at the respective institution (for example, together with a teacher), the internal decision-making process could often be quite unclear in terms of how to get started. The same applied to what was expected of them from the higher education institution (for example, compliance with certain technical and organisational standards or internal policies). Participants reported that this often led to a situation where time-consuming new requests or demands from the higher education institutions could ‘pop up’ at certain points in this process.

### Scaling up

Again, participants reported that the internal decision-making process could often be unclear in terms of the potential scaling-up of the EdTech effort, and what is expected of them from the higher education institution. They perceived the internal decision-making process at the higher education institution regarding the scaling-up of EdTech a ‘black hole’.

### 4.1.2 Dedicated budget, resources and facilities

Participants reported a lack of dedicated budget, resources and facilities for EdTech initiatives at the higher education institutions as an important barrier to educational innovation with EdTech. As a result, funding for EdTech initiatives often had to be secured in an ad hoc manner. Participants found that this could make the process time-consuming and unpredictable.

Like the higher education institutions participants, participants from the EdTech providers reported that the yearly budget cycle, which is still prevalent at higher education institutions, is challenging for them. Participants indicated that this yearly budget cycle could lead to long ‘lead times’, with some reporting that lead times of up to two years were more of a rule than an exception.

### 4.1.3 Technical and organisational standards

Participants mentioned that mandatory compliance with high technical and organisational standards imposed by the higher education institutions forms a

significant barrier to educational innovation with EdTech. They reported that these standards relate mostly to security, privacy, contract management, IT and – in some cases – accessibility. Participants also reported that different institutions seemed to observe different standards (and are often unclear about this, as mentioned above under 4.1.1 Processes) as an additional complicating factor.

Furthermore, participants noted that higher education institutions appeared to make no differentiation between large and small EdTech providers in the standards applied. Similarly, no differentiation appears to be made between the small-scale experimentation/pilot phase and any subsequent scaling-up phase. In many cases, compliance with the same technical and organisational standards was required. Participants reported that compliance with these standards could be costly, and considerable financial investment from the EdTech providers was needed before experiments or pilots could be started.

#### 4.1.4 Procurement and tender procedures

As highlighted by the higher education institutions, EdTech participants likewise described the current rules and regulations on procurement and tender procedures (and the financial constraints they experienced as a result of these) as an important barrier to educational innovation with EdTech.

Participants noted that these financial constraints were problematic, particularly in the process of scaling-up EdTech initiatives within the respective institutions. For example, if the decision was made to scale up an EdTech initiative institution-wide following initial experiments or pilots, tender procedures would often come into play. These tender procedures were perceived as time-consuming, costly and – due to the nature of the process – unpredictable.

Participants reported that a further complicating factor was the apparent difference between the higher education institutions in their interpretation of the current rules and regulations on procurement and tender procedures, for example, those relating to procurement thresholds. As one of the participants said: “Some institutions apply extra strict procurement thresholds ‘just to be on the safe side’. In some cases, this could lead to a situation in which the effort and cost required by the EdTech provider and the institution is no longer proportionate to the potential added value.”

Participants reported that the looming prospect of an intensive tender procedure seemed in some cases to have a discouraging effect on the stakeholders involved within the higher education institution.

#### 4.1.5 Vision and strategy

Participants identified the lack of a clear vision and strategy on educational innovation with EdTech at the higher education institutions as an important barrier to effective innovation with EdTech. They reported that the lack of vision and strategy (or the lack of clarity on the vision and strategy) often leads to ad hoc and unpredictable decision-making, which can be very time-consuming.

In common with participants from the higher education institutions, EdTech provider participants reported that an extra complicating factor is the fact that even where there is a vision and strategy in place on educational innovation with EdTech, often other – sometimes conflicting – strategies can be found within the institution, for example, within another domain or organisational unit.

## 4.2 Additional insights

### 4.2.1 Innovatieve houding of cultuur

In common with participants from the higher education institutions, EdTech provider participants reported the lack of an innovative mindset or culture within higher education institutions as a barrier to effective innovation with EdTech. Participants indicated that they saw much ‘copying’ of educational innovations with EdTech between higher education institutions, but not many original, innovative EdTech ideas.

### 4.2.2 Standardisation

Participants reported a lack of standardisation between higher education institutions, for example, relating to data processing agreements, model contracts and privacy and security ‘checklists’, as forming a barrier to educational innovation with EdTech. Participants indicated that standardisation among higher education institutions on these topics had increased over the years, but in practice many institutions still deviated from the agreed standards/templates (or interpreted them differently). Participants noted that dealing with these deviations required considerable time and effort on their part, and could therefore be both costly and time-consuming.

#### 4.2.3 Level of mistrust

Participants reported a certain level of mistrust from the higher education institutions towards EdTech providers as a barrier to educational innovation with EdTech. They added that a certain level of trust between the parties was essential to form productive partnerships between institutions and providers of educational innovation with EdTech. Participants noted that the experienced negative bias towards them as 'tech companies against which higher education institutions must protect themselves' could be counterproductive to establishing the desired partnerships.

#### 4.2.4 Sharing and learning between institutions

Participants also reported the lack of sharing and learning between higher education institutions as a barrier to educational innovation with EdTech. Participants believed that increased sharing and learning between institutions, and building on each other's experiences and evaluation results, could speed up the process of adoption and scaling-up of certain EdTech initiatives within different institutions.

## 5. Conclusion

During both the workshops with the participating higher education institutions and the workshops with the EdTech providers, it became clear that a significant overlap exists between both sides with regard to the barriers experienced when pursuing educational innovation with EdTech. Both sides agreed that the lack of a clear, institution-wide vision and strategy on educational innovation with EdTech could be considered the main barrier to effective innovation with EdTech.

Both sides agree that this lack of vision and strategy leads in many cases to a situation where efforts towards educational innovation with EdTech within higher education institutions are performed on a reactive, ad hoc basis, instead of a proactive, strategic basis. Both sides agreed that the starting point of any move towards a more proactive, strategic approach must be to ensure there is a clear, institution-wide vision and strategy on educational innovation with EdTech.

However, a clear vision and strategy alone is not enough. This vision and strategy should be effectively translated into clear processes and dedicated budgets, resources and facilities for experiments, pilots and scaling-up efforts with EdTech. In addition, effective communication on these topics with the stakeholders is essential.

Furthermore, the other barriers mentioned in this report can be seen as factors to be taken into account when further developing the vision and strategy on educational innovation with EdTech. The choices that higher education institutions make during this process will, of course, depend largely on the specific context of the individual institution.

## 6. Next steps

We would like to emphasise that this report sets out a clear starting point for follow-up activities. Following the productive exchange between participants during the workshops, many participating institutions have already started working towards improving the situation regarding educational innovation with EdTech at their respective institutions. To provide inspiration, the EdTech Zone will be actively gathering, developing and sharing best practices with regard to the barriers identified, with the aim of supporting institutions' efforts to overcome them.

As a final comment, the EdTech Zone would like to emphasise that this is a living document and can be considered a snapshot of the current situation. It is inevitable that, over time, new barriers will emerge and new challenges will arise. We will continue having conversations about this topic, and therefore invite all stakeholders to share their experiences and best practices with us.





*The Acceleration Plan for Educational Innovation with IT is a four-year programme of SURF, the Netherlands Association of Universities of Applied Sciences and the Association of Universities in The Netherlands. The aim of the programme is to bring together initiatives, knowledge, and experiences and to quickly and concretely get started with opportunities for higher education. This is done in eight different “zones”. In the acceleration zone EdTech, six institutions are working in two tracks to facilitate EdTech in higher education in the Netherlands.*



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