



**national treasury**

Department:  
National Treasury  
REPUBLIC OF SOUTH AFRICA

**RT275-2020**

**Speech Therapy Assistive Devices  
and Accessories**

**Annexure D**

**Procurement Guideline**

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## 1. Introduction and Purpose

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RT275-2020 is the first transversal contract to offer broad-based assistive solutions for the following use cases:

- Healthcare: patients with special needs
- Educational: Learners with Special Education Needs (LSEN) schools and learners with disabilities
- Workplace: Government workers with disabilities or special needs, to facilitate reasonable accommodation for employees.

The purpose of this document is to enable users of Transversal Contract RT275-2020 to identify, specify and select appropriate solutions for their assistive or therapeutic needs. By navigating to the relevant section of the document, Organs of State can access more details and selection guidelines for the various solutions available on the transversal contract.

To allow quick access of the appropriate section of this Guide, a **Quick Reference** is provided in Section 3.

A **Terms and Definitions** list has been included in the Annex to define acronyms, abbreviations, and technical terms.

**Note:** The purpose of RT275-2020 is solely for procuring assistive solutions for people with disabilities or special needs, or for medical/health practitioners and health institutions. The transversal contract must not be used for general requirements not related to disabilities or special needs.

### References

- Department of Basic Education (DBE) National Guidelines Annex A: **Assistive Devices for Reasonable Accommodation**
- State Information Technology Agency (SITA) Technical Specifications for **Assistive Technologies**  
<http://www.sita.co.za/prodcert.htm>

## 2. Transversal Contract Overview

The commodities and services available via the transversal contract RT275-2020 are categorised and summarised in the table below. The table can be used to navigate to the section in the document that addresses the end-user need.

For a complete list of products and solutions on the transversal contract, as well as technical specifications and pricing, please consult the National Treasury website at <http://www.treasury.gov.za/divisions/ocpo/ostb/contracts/default.aspx>

### ASSISTIVE SOLUTIONS: END-USER

#### 1. Literacy, Low-Tech Communication and Enabling Tools

1.1	Accessible literacy	Various types of literacy strips with fasteners and containers where required
1.2	Low-tech communication tools	Picture and activity communication tools, including portable and wrap-around types, and velcro fasteners
1.3	Enabling devices	Various low-tech motor and visual enabling tools, including pointers, magnifiers, and braille devices

#### 2. Communication and Assistive Devices

2.1	Augmentative and alternative communication devices	Various types of non-computer-based augmentative and alternative communication devices
2.2	Assistive listening and text-to-speech	Various audio and voice amplifiers and text-to-speech solutions
2.3	Magnification devices	Digital magnification devices, including portable and desktop-type
2.4	Access and autonomy	Various devices to enable computer access, autonomy and learning for people with physical disabilities, including labelling, navigation, warning and music

#### 3. Assistive Accessories

3.1	Assistive switches	Various types of assistive switches
3.2	Mounting solutions	Various types of assistive mounting solutions, including arms, plates, clamps and stands
3.3	Batteries	Various types of rechargeable and disposable batteries, and associated chargers.

#### 4. ICT-based Devices and Solutions

4.1	Tablet computers	Tablet devices for assistive solutions
4.2	Tablet/software bundles	Various bundles of tablets and assistive software
4.3	Alternative computer input	Various types of alternative computer input devices, including alternative keyboards, pointing devices, eye-tracking and OCR
4.4	Eye-tracking bundles	Various eye tracker/software bundles and eye-tracking solution bundles
4.5	Visual support aids	Various types of information access solutions for visually impaired users, including braille devices, smart devices and player/recorders

4.6	Cases and mounts	Frames, carry cases and mounts for tablet devices
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## 5. Assistive Software

5.1	Communication software	Various types of software to support people with speech disabilities
5.2	Vision support software	Various types of software to support information access for low-vision users
5.3	Learning and development software	Various types of software to support literacy and skills development

## ORAL/VOICE THERAPY PRODUCTS

### 6. Feeding and oral motor

6.1	Feeding and oral motor-related products
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### 7. Laryngectomy

7.1	Laryngectomy-related products
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### 8. Tracheostomy

8.1	Tracheostomy-related products
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## GENERAL THERAPY RESOURCES

### 9. Assessment tools

9.1	Assessment tools	Various standardised assessment tools and resources
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### 10. Therapy Resources

10.1	Speech therapy-related resources
10.2	Other assistive therapy-related resources

## SERVICES

### 11. Assistive Services

11.1	Assistive hearing services	Services for hearing-impaired users, including captioning and sign interpreting, and other related services for people with disabilities
11.2	General assistive services	General services to people with disabilities, including consultation, training, and support

### 3. Quick Reference

This section provides a mapping from a generally accepted list of disabilities provided by the A&A Workgroup and DBE to specific solution categories available on RT275-2020 or other contracts.

	<b>A&amp;A / DBE disability categories</b>	<b>Related Solution Categories</b>
1.	Hearing (Deaf, hard of hearing, deaf and hearing-impaired)	Refer to <b>RT274</b> for all solutions, except: <b>2.2: Assistive listening and TTS</b> <b>11: Assistive hearing services</b>
2.	Vision (Blind, Low Vision, Deafblind)	<b>1.3: Enabling devices</b> and low-tech aids, including magnifiers, pointers, and braille tools <b>2.3: Electronic magnification devices</b> <b>2.4: Access and autonomy</b> , including talking devices <b>4.2:</b> Text to Speech solutions <b>4.3: Alternative computer input</b> <b>4.5: Visual support aids</b> , including braille systems and personal media access devices <b>5.2: Vision support software</b> , including OCR, STT, TTS, magnification, and braille software
3.	Mobility/Motor (physical function e.g., impaired upper limb or lower limb functionality, quadriplegia, paraplegia)	<b>1.3: Enabling devices</b> <b>3.1: Assistive switches</b> <b>3.2: Mounting solutions</b> <b>4.1: Tablet computers</b> <b>4.3: Alternative computer input</b> <b>4.4: Eye-tracking bundles</b> <b>4.6: Cases and mounts</b> <b>5.3: Learning and development software</b>
4.	Neurological and neurodevelopmental impairments (e.g., cerebral palsy, autism, foetal alcohol syndrome, traumatic head injury, stroke, epilepsy, attention and hyperactivity disorder, dyslexia, down syndrome, dyscalculia, dysgraphia)	<b>1.1 Accessible literacy</b> <b>1.3: Enabling devices</b> <b>2.1 Augmentative and alternative communication devices</b> <b>2.2 Assistive listening and text-to-speech</b> <b>2.3 Magnification devices</b> <b>2.4 Access and autonomy</b> <b>3.1: Assistive switches</b> <b>3.2: Mounting solutions</b> <b>4.1: Tablet computers</b> <b>4.2 Tablet/software bundles</b> <b>4.3: Alternative computer input</b> <b>4.4: Eye-tracking bundles</b> <b>4.5 Visual support aids</b> <b>4.6: Cases and mounts</b> <b>5.1 Communication software</b> <b>5.2 Vision support software</b>

		<p><b>5:3: Learning and development software</b></p> <p><b>6.91 – 6.144: Oral-motor stimulation devices</b></p> <p><b>6.148 – 6.174: Modified feeding utensils / instruments</b></p>
5.	Cognition and learning - moderate, severe, and profound intellectual disability	<p><b>Categories 1 – 5:</b> AAC devices and accessories of variable functioning capabilities and complexity</p> <p><b>1.1 Accessible literacy</b></p> <p><b>4.1 Tablet Computers</b></p> <p><b>4.2 Tablet/Software bundles</b></p> <p><b>5.1 Communication Software</b></p> <p><b>5.3 Learning and Development Software</b></p>
6.	Communication - little or no functional speech	<p><b>Categories 1 – 5:</b> AAC devices and accessories of variable functioning capabilities and complexity</p> <p><b>1.2 Low-tech communication tools</b></p> <p><b>2.1 Augmentative and Alternative communication devices</b></p> <p><b>2.2 Assistive listening and text-to-speech</b></p> <p><b>4.1 Tablet Computers</b></p> <p><b>4.2 Tablet/Software bundles</b></p> <p><b>5.1 Communication Software</b></p>
7.	Health (diabetes, chronic conditions, mental health e.g., depression, schizophrenia, bipolar disorder)	<p><b>Categories 1 – 5:</b> AAC devices and accessories of variable functioning capabilities and complexity – especially if this category includes Alzheimer’s / Parkinson’s / Dementia</p>
8.	Behaviour and social skills (caused by e.g., abuse, neglect, trauma, malnutrition)	<p><b>10.2 Other assistive therapy-related resources</b></p>

## 4. Engagement Process

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The general process for engaging with Suppliers on transversal contract RT275-2020 is as follows:

1. Transversal Contract user (Participant) **defines** the end-user **requirement** (in summary/high level)
2. In cases where the solution is not already known, or the complexity requires additional expertise or design, the Participant issues a Request for Proposal (RFP) with summarised requirement (e.g., Digital magnifier for low-vision user). Note that Request for Quotations (RFQs) are not needed in cases where the device or solution has already been identified.
3. Supplier **gathers information** on requirement and performs **needs assessment**.
4. Supplier **designs proposed solution** based on requirements definition.
5. Supplier **responds to RFP** using bill of materials as per solution design, including services and logistics requirements for costing, and a total cost estimate based on transversal contract pricing.
6. After evaluating compliance and price/performance, Participant **awards proposal** to one of the RFP respondents.
7. Successful supplier **delivers solution components** to Participants premises.
8. Skilled practitioner (either solution specialist from supplier or therapist/practitioner from Participant environment) **installs and configures** the solution.
9. Depending on complexity and integration requirements, **solution is integrated** into Participant environment (network, user's physical space, application software).
10. Once the solution is fully operational, Participant is **oriented and trained** to use the solution effectively.
11. During the expected lifespan of the solution, **support and maintenance** are provided according to transversal contract conditions, Participants needs and solution constraints. These services cater for issues experienced by the Participant with usage of the solution, software and hardware failures (requiring warranty from manufacturer), and any other situations where the solution is not delivering the agreed functionality or performance.

Finally, in addition to the bundled services above, a **stand-alone consultation** service is available to advise Participants regarding best practices, technical and solution design matters. This can be either pre-sales or post-sales, depending on Participant's requirement.

### Transversal Contract usage scenarios

RT275-2020 can be used in several different ways, depending on which of the following scenarios applies about the Participant:

- **Therapist-led scenario:** A healthcare or school environment with a skilled and experienced practitioner using the transversal contract to procure an assistive solution for a patient. Therapists already have the required healthcare background to specify and procure appropriate assistive solutions.

- **High-assessment scenario:** Participants with complex needs requiring detailed, expert assessment. This could apply to solutions such as advanced eye-tracking systems or high-end magnification systems.
- **Low-assessment scenario:** requiring minimal investigation or information, the appropriate component is relatively easy to identify and procure. This could include mounting plates or batteries, for example.
- **Repeat procurement/replacement (for the same user/patient/condition) or upgrade scenario:** no assessment needed, since the transversal contract user has already determined what is required based on existing products or recent assessment for a different Participant with the same condition, for example. In all cases the practitioner or Participant must ensure that the correct product is purchased as specified. If there is any doubt, an assessment must be done to avoid procuring unsuitable solutions. Assessment may be omitted only if the item being used is a standard one for every end user with that problem, e.g., cleft lip and palate feeding bottles may be ordered repeatedly and for several different end-users because it has already been assessed to be effective with several end users with that specific medical condition. However, the type of Augmentative and Alternative Communication Devices (AAC) device or spoon or cup or electrolarynx needs to be procured based on assessment of each individual end-user and what works best for them. Upgrading such devices / instruments would also require a re-assessment of the end-users' skills to determine the best possible upgrade for the end-user.

## 5. Principles and General Guidelines

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- Needs assessments, both by practitioners and Suppliers, must be independent and unbiased. Suppliers should make unbiased recommendations based on the actual Participant's need, and not just favour the products they supply. Conversely, Participants should keep in mind that Suppliers' recommendations are not always completely authoritative, and need to be balanced against available information, this guideline document, and a cost-effectiveness evaluation.
- The physical and mental capabilities of the patient or end-user are essential considerations to determine suitable assistive solutions. These abilities/capabilities, include vision, hearing, physical status, cognitive ability, attention span, mobility, vocabulary, environment, and educational/work background, as well as medical history. All these factors can be broken down into sub-components, the outcome of which can significantly affect the final assistive solution.
- Socio-economic factors should also be considered, including financial status, educational level of caregivers or parents, and practical matters such as availability of electricity to charge a device, or a computer to install software to enable an assistive solution.
- Holistic view of patient/end-user: a person with a disability will often exhibit multiple additional, independent challenges, require multiple interventions or a broader assessment regimen. The person may also have a lower-priority disability that is not currently the focus. When considering the primary requirement, it is often easy to overlook these secondary requirements. E.g., text-to-speech requiring Optical Character Recognition (OCR) as an input requirement.
- Participants/patients often prefer a certain product, by virtue of experience, familiarity or training, and they can function most effectively when using that specific product or brand of product. This must be considered during pricing and procurement processes, also considering other factors such as total cost over the life of the product (TCO), as well as alternative solutions.
- A one-size-fits-all approach **must not** be used here, as every Participant's physical needs and preferences are unique, and must be assessed on an individual basis.
- The most cost-effective product or solution must be proposed by Supplier/practitioner, once all Participant's considerations such as training and capabilities have been addressed. Cost-effectiveness is mandated by the South African Constitution Section 217.
- In the case of Information and Communications Technology (ICT)-based solutions, Organ of State's ICT or SITA should be involved in solution selection and deployment.
- As far as possible, **bundled, turnkey** solutions must be procured instead of separate components. This is to ensure interoperability and allowing service and support from a single supplier.
- The more complex or medically specialised the Participant's requirement is, the more knowledgeable and/or specialised the practitioner and solution must be.
- A special-needs user's requirements may change over time as their physical capabilities improve or deteriorate.
- Several different Participant's types are in view for RT275-2020, including Government patient vs. Government employee vs. learner. Different processes and rules apply in cases where the State is providing an assistive solution for a patient, as opposed to an employee for whom these are work tools, or a learner/student in school or university.

## 6. Needs Assessment / Analysis

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Prior to procuring an assistive solution from RT275-2020, an **end-user needs assessment** must be conducted by a skilled practitioner, either from the Participant's environment (e.g., a trained therapist), or from the Supplier.

Ideally a skilled and experienced practitioner should be involved in all needs assessments to ensure identification, selection, and deployment of suitable assistive solutions. However, where this is not possible, guidance has been made available in this section to assist Participants by listing criteria, or providing a rudimentary questionnaire. Support has been provided by National Treasury in this document by developing a basic template set of questions for each relevant category.

**Assessment criteria** are influenced by the complexity of the requirement and will vary by RT275-2020 product/item category, as well as specific end-user needs. For example, low-tech solutions such as AAC tools or enabling devices require minimal or no assessment, while more complex solutions such as eye-tracking or magnifiers typically require a more extensive assessment process.

Where specialist/practitioner intervention is required in the use of the product or solution (e.g., low-tech AAC therapy or oral/voice therapy), the **therapist will be instrumental** in determining the correct product or solution. In such cases a guided assessment or criteria template should not be necessary. The amount of experience that the therapist has with a certain type of solution will also determine whether additional guidance is required.

The following sections provide criteria and considerations to support the needs assessment process per category or sub-category. Therapist-led categories are defined as such, and no further information is provided.

### How to use this analysis guide

- Start with the type of user requirement to select the right Category,
- Within the Category, navigate to the relevant section,
- Use the criteria/questions provided to identify the correct device/solution type.

**Note:** where no detail is provided with regards to RT275-2020 categories and criteria, the therapist must determine requirements and propose suitable solutions.

### Preliminary Questionnaire (Assistive Screening Questions)

The following questions/considerations should form the baseline of any need's assessment.

- Diagnosis/Impairment
- Age
- Environment (support system, caregiver(s), electricity, internet)
- Working/studying/at school?
- Functional goal(s) - i.e., what does the user want/need to be able to do? (examples, listen to a textbook instead of reading, access a computer game without use of hand, etc.)

- What solution is the end-user currently using?
- How comfortable is the user with technology?

## ASSISTIVE SOLUTIONS: END-USER

### 1: Literacy, Low-Tech Communication and Enabling Tools

#### 1.1 Accessible literacy

Practitioner-led therapy; therapist to perform assessment as required.

#### 1.2 Low-tech (non-electronic) enabling devices

Practitioner-led therapy; therapist to perform assessment as required.

#### 1.3 Enabling devices

Limited assessment required – basic matching of user need to available solutions. E.g., solution for blind users include Braille slate or writer, optical magnifier, signature guide, etc.

1-15	White Cane	<p><b>Aids for blind users:</b> practitioner must match user requirement to the appropriate product category</p> <p><b>Requirements criteria:</b></p> <ul style="list-style-type: none"> <li>• Device must meet the actual daily living need of the user as identified.</li> </ul>
1-17	Money stick	
1-18	Liquid level indicator	
1-19	Signature guide	
1-20	Goal ball	
1-21	Typing Stick	<p><b>Typing/control aids for users with motor challenges:</b> practitioner must match user requirement to product category and ensure that the actual need is addressed at delivery.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Device must fit the user comfortably and allow control of the actual devices used daily.</li> </ul>
1-16	Head Pointer	
1-22	Handheld Optical Magnifier	<p><b>Vision aids for low-vision users:</b> practitioner must match user requirement to the correct optical magnifier type.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Selected magnifier must address the user's actual visibility need.</li> <li>• User comfort is an important factor for extended use: size and weight of device, as well as the field of view and magnification factor.</li> <li>• Besides vision, other user capabilities such as dexterity.</li> </ul>
1-23	Optical Magnifier with Stand	
1-24	Optical Reading Magnifier, Bar	
1-25	Optical Reading Magnifier, Dome	
1-26	Manual Braille Slate	<p><b>Braille devices and consumables for blind users:</b> practitioner must match user requirement to correct product category and ensure that the actual need is addressed at delivery.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Braille device must meet the specific requirements of the end-user as identified.</li> </ul>
1-27	Manual Braille Writer	
1-28	Braille Paper, single sheet	
1-29	Braille Paper, A4	

## 2. Communication and Assistive Devices

### 2.1 Augmentative and alternative communication devices

Assessment required – suitable solution recommended by practitioner.

2-1	Voice output device, single message	<p><b>Voice output devices for AAC:</b> Specific end-user speech needs and capabilities must guide the practitioner to select the most suitable of 20+ different AAC speech output devices available, ranging from single message to &gt;100 messages, with various sizes, levels, and physical button configurations.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Number of messages or recording time</li> <li>• Number of levels</li> <li>• Scanning or switch support</li> <li>• Physical size</li> <li>• Form factor: wearable?</li> <li>• User/patient physical/mental capability</li> <li>• Direct/indirect selection (direct touch vs. scanning)</li> </ul>
2-2	Voice output device, single message, audio input	
2-3	Voice output device, 100 messages	
2-4	Voice output device, 8 minutes, large	
2-8	Voice output device, 45 messages, large	
2-9	Voice output device, 45 messages, large, advanced	
2-10	Voice output device, 4 messages, small	
2-11	Voice output device, 9 messages, wearable	
2-12	Voice output device, 4 minutes, large	
2-13	Voice output device, 4 minutes, small	
2-14	Voice output device, 2 messages	
2-15	Voice output device, 64 messages, switch-activated	
2-16	Voice output device, 163 messages	
2-16	Voice output device, 163 messages	
2-17	Voice output device, 160 messages, scanning	
2-18	Voice output device, 6 minutes	
2-19	Voice output device, 20 minutes	

### 2.2 Assistive listening and text-to-speech

Limited assessment required – suitable solution recommended by practitioner.

Note that **hearing aids** are not available on RT275-2020, since they are already available on another transversal contract **RT274**.

2-20	Induction Loop System, Fixed	<p><b>Listening and speech assistive devices:</b> Specific user needs must guide the practitioner to choose the appropriate listening or speech device. Solutions include loop systems and headsets for hearing-impaired, and voice amplifiers and communication devices for speech assistance.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Chosen device must meet the specific listening/speech requirements of the end-user as identified and fit the user comfortable in case of wearables.</li> <li>• Integration with end-user's hearing aid (if required)</li> </ul>
2-21	Induction Loop System, Portable	
2-22	Induction Loop Receiver	
2-23	Portable Voice Amplifier	
2-25	Portable Voice Amplifier – Wireless	
2-26	Dual Headset	
2-27	Dynamic Communication Device	

### 2.3 Magnification devices

Assessment based on type of magnification device required: desktop/portable/wearable, magnification level, usage model.

2-28	Desktop Digital Magnifier	<p><b>Electronic magnification devices:</b> Specific user needs must guide the practitioner to choose the appropriate magnifier: form factor options include desktop/portable, hand-held/mouse and wearable. Various display sizes and magnification factors can be selected to meet the requirement.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Form factor: Desktop / Portable / Handheld / Wearable</li> <li>• Display size required</li> <li>• Interface: buttons/touch</li> <li>• Speech required?</li> <li>• Lighting requirements (built-in/ambient)</li> <li>• User comfort is an important factor for extended use: display size, field of view and magnification factor.</li> <li>• Size and weight of portable devices</li> <li>• Image manipulation features (e.g. high contrast, reverse, monochrome)</li> <li>• Connectivity: output to external display required?</li> </ul>
2-29	Advanced Desktop Digital Magnifier	
2-30	Desktop Digital Magnifier with Text to Speech	
2-31	Desktop Digital Magnifier with Text to Speech - 20"	
2-32	Desktop Document Magnifier/Camera	
2-33	Desktop/Portable Digital Magnifier	
2-34	Desktop/Portable Digital Magnifier, battery-powered	
2-35	Portable Digital Magnifier	
2-36	Portable Magnifier with Speech	
2-37	Handheld Magnifier, 3"	
2-38	Handheld Magnifier with Stand, 5"	
2-39	Handheld Magnifier with Stand, 7"	
2-40	Handheld Magnifier with Speech, 7" touch	
2-41	Mouse-type Digital Magnifier	
2-42	Handheld Monocular	
2-43	Wearable Digital Magnifier	

### 2.4 Access and autonomy

Limited assessment required – basic matching of user need to available solutions. E.g., solution for blind users include stand-alone OCR devices, audio labelling or talking devices such as watches and calculators.

2-44	Large Display Calculator	<p><b>Daily living and therapy aids:</b> Various calculators, watches, stopwatches, navigation aids, audio labelling and warning systems, and music therapy solutions are available.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Specific user needs or task that must be performed will guide the practitioner to choose the appropriate aid or therapy</li> </ul>
2-45	Advanced Large Display Calculator	
2-46	Talking Calculator	
2-47	Advanced Talking Calculator	
2-48	Talking Watch	
2-49	Optical Character Recognition (OCR) Device - battery-powered	
2-50	Optical Character Recognition (OCR) Device	
2-51	Audio Labelling Device	

2-52	Navigational Aid for Visually Impaired	solution.
2-53	Cane-Mountable Travel Aid	
2-54	Handheld Talking GPS	
2-55	Wearable Warning System	
2-56	Timer / Stopwatch	
2-57	Inclusive Interactive Music System	

### 3. Assistive Accessories

The purpose of these accessories is solely to support assistive solutions procured via RT275-2020. It may not be used to satisfy non-assistive or general requirements (e.g., batteries for TV remote control).

#### 3.1 Assistive switches

Switches are a more specialised area requiring detailed assessment and understanding of the end-user's needs, capabilities, and limitations, as well as the devices/equipment that need to be controlled. Criteria include size of switch, wired/wireless and specialised types such as toy-mounted, pneumatic, bite, etc.

The nature of these switches means that there is often natural wear and tear, and even unintentional user damage. These should be covered under warranty unless user negligence can be demonstrated. Parts of devices that are consumables must be available for purchase separately to maintain functionality. In the case of out-of-warranty user damage, Suppliers must assess the damage and provide a quotation for repair. Since most of the switches are designed to be robust and should not be easily damaged if appropriately recommended and used.

3-1	Small assistive switch	<p><b>Switches:</b> Specific user needs must guide the practitioner to choose the appropriate switch solution.</p> <p>Various switch sizes, specialised access methods, adapters and interfaces are available.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Integration with existing end-user device to be controlled</li> <li>• Primary user interaction type: normal touch / light touch / proximity / squeeze/pinch/bend / puff / bite</li> <li>• Physical switch size</li> <li>• Connectivity: type of device or toy to control via the switch, wired, wireless</li> <li>• Mounting options: to what surface or object will the switch be mounted?</li> <li>• Adapters for various use cases</li> <li>• User must be able to use any connected devices easily and comfortably and the switch must allow control of all devices</li> </ul>
3-2	Small assistive switch, wireless	
3-3	Large assistive switch	
3-4	Large assistive switch, wireless	
3-5	Head/cheek assistive switch	
3-6	Light touch assistive switch	
3-7	Proximity assistive switch, 10mm	
3-8	Proximity assistive switch, 25mm	
3-10	Joystick assistive switch, 5-way	
3-11	Squeeze/pinch assistive switch	
3-12	Bend assistive switch	
3-14	Low-profile assistive switch	
3-15	Pneumatic assistive switch	
3-16	Bite assistive switch	
3-17	USB adapter for assistive switch	
3-18	Advanced USB adapter for assistive switch	
3-19	Dual wireless assistive switch interface	

3-20	Switch adapter for battery-operated device (AA)	needed on a daily basis.
3-21	Switch adapter for battery-operated device (C/D)	
3-22	USB adapter for assistive switch - 6-way	
3-23	USB Interface Kit for assistive switch - 6-way wireless	
3-24	2-way adapter for Assistive switch	
3-25	2-way adapter for Assistive switch, wireless	
3-27	Wireless Transmitter for Switch	
3-28	Wireless Receiver	
3-29	Assistive switch-adapted toy, plastic	
3-30	Assistive switch-adapted toy, plush	
3-31	2-way adapter for Assistive switch - 2 toys	
3-32	2-way wireless adapter for Assistive switch toys - 1 toy	
3-33	2-way wireless adapter for Assistive switch toys - 1 toy, with timer and latch	
3-34	2-way wireless adapter with proximity switch	
3-35	Switch Toy Control via computer	
3-36	Switch adapted Mains Appliance Control	

### 3.2 Mounting solutions

Detailed assessment required. Mounting solutions are determined by the type of end-user environment (wheelchair, bed, desk, etc.), the type of devices and switches (laptop/tablet, switch type) required to be mounted, and mobility requirements (does the device need to be moved between wheelchair and bed, for example).

3-37	Mounting plate for bend switch	<p><b>Mounting:</b> The physical environment, including furniture, mobility needs, and patient capabilities must determine the type of mounting solution.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Specific device to be mounted</li> <li>• Surface/object that device is to be mounted to</li> <li>• Weight of device</li> <li>• Stability/mobility requirements: mounting arm required, articulation, strength of arm, stability of mount/floor stand</li> <li>• Available space in room (e.g. floor stands in small areas)</li> </ul>
3-38	Mounting plate for squeeze switch or joystick	
3-39	Mounting plate for light-touch switch	
3-40	Universal switch mounting plate kit	
3-41	Device mounting plate	
3-42	Mounting arm and clamp for communication device	
3-43	Universal mounting system	
3-44	Universal mounting system	
3-45	Floor stand and VESA mounting plate	
3-46	Floor stand and VESA mounting plate, telescopic	
3-47	Mounting arm with clamp for heavy devices	
3-48	Device mounting plate and arm	
3-49	Mounting arm with clamp for large devices	
3-50	Mounting Arm with table stand for large devices	

3-51	Mounting arm with clamp, turn knobs
3-52	Lightweight mounting arm for switches
3-53	Lightweight mounting arm kit for switches
3-54	Gooseneck mounting arm
3-55	Mounting arm for laptop or monitors
3-56	Mounting plate for tablet
3-57	Mounting plate for 10" tablet (holder with clamp mount)
3-58	Mounting plate for 11" tablet (holder with clamp mount)
3-59	Mounting plate for 12" tablet (holder with clamp mount)
3-60	Mounting plate for tablet (adjustable holder with clamp mount)
3-61	Mounting plate for tablet (holder with mounting arm and clamp)
3-62	Clamp for mounting arm
3-37	Mounting plate for bend switch
3-38	Mounting plate for squeeze switch or joystick
3-39	Mounting plate for light-touch switch
3-40	Universal switch mounting plate kit
3-41	Device mounting plate
3-42	Mounting arm and clamp for communication device
3-43	Universal mounting system
3-44	Universal mounting system
3-45	Floor stand and VESA mounting plate
3-46	Floor stand and VESA mounting plate, telescopic
3-47	Mounting arm with clamp for heavy devices
3-48	Device mounting plate and arm
3-49	Mounting arm with clamp for large devices
3-50	Mounting Arm with table stand for large devices
3-51	Mounting arm with clamp, turn knobs
3-52	Lightweight mounting arm for switches
3-53	Lightweight mounting arm kit for switches
3-54	Gooseneck mounting arm
3-55	Mounting arm for laptop or monitors
3-56	Mounting plate for tablet
3-57	Mounting plate for 10" tablet (holder with clamp mount)

3-58	Mounting plate for 11" tablet (holder with clamp mount)	
3-59	Mounting plate for 12" tablet (holder with clamp mount)	
3-60	Mounting plate for tablet (adjustable holder with clamp mount)	
3-61	Mounting plate for tablet (holder with mounting arm and clamp)	
3-62	Clamp for mounting arm	

### 3.3 Batteries

Basic assessment. Battery requirements are determined solely by the type of device that needs to be powered. Assessment is therefore simply determining which type of battery is needed by the device (e.g., AAC device, portable magnifier, etc.) Rechargeable batteries are the norm in this category.

3-63	Universal Battery Charger	<p><b>Batteries:</b> The type of device is the main consideration here.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Device to be powered</li> <li>• Number of cells required</li> <li>• Charger required?</li> </ul>
3-64	9V Battery Charger	
3-65	Rechargeable AAA battery	
3-66	Rechargeable AAA battery	
3-67	Rechargeable AA battery	
3-68	Rechargeable AA battery	
3-69	Rechargeable 9V battery	
3-70	9V Li-Ion battery	

## 4. ICT-based Devices and Solutions

### 4.1 Tablet computers

Detailed assessment: criteria for tablets include the type of software that needs to be installed (determining tablet capacity and performance), the type of hardware and accessories (sensors, output devices, mounting options), and the user interface variables such as touch/keyboard/sensor/switch input, screen size and audio capabilities (speakers, microphone). Mobility requirements include battery life, size of device and mounting possibilities. Tablet types include Basic, Entry, Mid-range and Dedicated.

Any ICT-based solution must involve Organ of State's ICT resources and ICT policies. The needs assessment must consider any other ICT systems that need to interoperate with the assistive solution.

4-1	Basic 7" tablet for AAC solutions	<p><b>Tablets:</b> The type of software, device size, mobility requirements and user capabilities all play a role in selecting an appropriate tablet computer.</p> <p><b>Requirements criteria:</b></p> <ul style="list-style-type: none"> <li>• Display size: distance from user, vision and touch capability/dexterity</li> </ul>
4-2	Entry-level 11" tablet for AAC solutions	
4-3	Midrange 13" tablet for AAC solutions	

4-4	High-end 14" tablet for AAC solutions	of user
4-5	Dedicated 10" Windows tablet for AAC solution	<ul style="list-style-type: none"> <li>• Processing requirements: applications determine processing power and storage size</li> <li>• Connectivity required based on end-user mobility needs: e.g. USB, Bluetooth, WiFi or LTE</li> <li>• Required battery life</li> <li>• Mounting requirements</li> <li>• Carry bag/case/sleeve needed?</li> <li>• Accessories needed (e.g. speakers, keyboard/mouse, etc.)</li> </ul>

## 4.2 Tablet/software bundles

Detailed assessment: tablet bundles are a combination of hardware and software, making it easier to procure a turnkey solution. Specific applications and solutions are addressed via these bundles, including Text-to-Speech (with specific language support as per user need), advanced AAC solutions, and eye gaze solutions.

All other criteria and end-user considerations must still be addressed prior to procurement.

It is vital that Participants place significant emphasis on TCO and cost-effectiveness when comparing solutions that deliver the comparable functionality, since there are very large price differences.

4-6	Text-to-speech solution with indigenous SA languages	<p><b>Tablet bundles:</b> As in the previous section, the type of software, device size, mobility requirements and user capabilities all play a role in selecting an appropriate tablet computer.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Display size: distance from user, vision and touch capability/dexterity of user</li> <li>• Processing requirements: applications determine processing power and storage size</li> <li>• Connectivity required based on mobility needs: e.g. USB, Bluetooth, WiFi or LTE</li> <li>• Required battery life</li> <li>• Mounting requirements</li> <li>• Carry bag/case/sleeve needed?</li> <li>• Accessories needed (e.g. speakers, keyboard/mouse, etc.)</li> <li>• Optimal seating position to interact with eye tracker and computing device</li> <li>• Seating solution may have to be designed and procured based on end-user requirement</li> </ul>
4-7	Text-to-speech solution with indigenous SA language (Afrikaans & English)	
4-8	Tablet communication Device with AAC software	
4-9	Tablet communication Device with AAC software	
4-10	Tablet communication Device with AAC software	
4-11	Tablet communication Device with AAC software	
4-12	Dedicated 10" tablet with AAC applications	
4-13	Speech-Generating Tablet	
4-13a)	Tablet keyguard	
4-14	Eye gaze-based speech generating system	
4-15	Ruggedised AAC Tablet, 8"	
4-16	Ruggedised AAC Tablet, 10"	
4-17	Ruggedised AAC Tablet, 12"	
4-18	Ruggedised Speech Generating Tablet with Eye Tracking	

### 4.3 Alternative computer input

Detailed assessment: assistive input devices include various types of specialised keyboards, mice and other specialised pointing devices, various types of eye trackers, and Optical Character Recognition solution for converting paper documents to text or speech. Thorough understanding of the end-user's capabilities and limitations is required to propose a suitable solution; it is recommended that a therapist be involved in the assessment process.

4-19	High-visibility keyboard	<p><b>Input devices:</b> The type of tasks the user needs to perform, and user dexterity/vision must be used to determine the correct keyboard, pointing or image capture device.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>End-user vision for large-print and high-contrast keyboards</li> <li>End-user manual dexterity will determine whether a keyguard is needed.</li> <li>Connectivity and mobility needs</li> </ul>	
4-19a)	Metal cover for high-visibility keyboard		
4-19b)	Clear cover for high-visibility keyboard		
4-20	High-visibility keyboard, wireless		
4-20a)	Clear cover for wireless high-visibility keyboard		
4-21	Large-Print Keyboard		
4-21a)	Keyguard for Large-Print Keyboard		
4-22	Large-Print Keyboard with magnification support		
4-23	Large-Key Keyboard		
4-23a)	Keyguard for Large-Key Keyboard		
4-24	Single-handed Keyboard		<ul style="list-style-type: none"> <li>Specific end-user typing needs, including reach, left/right-handedness, and key layout.</li> </ul>
4-25	Pointing device - Joystick		<ul style="list-style-type: none"> <li>Specific end-user pointing needs</li> <li>User manual dexterity or relevant physical abilities (e.g. range of movement of limb)</li> <li>User vision capabilities</li> <li>Connectivity and mobility needs</li> </ul>
4-26	Pointing device - Advanced joystick		
4-27	Pointing device - Trackball		
4-28	Pointing device - Advanced trackball		
4-29	Pointing device - Head mouse		
4-30	Pointing Device - Head / Limb Mouse		
4-31	Pointing Device - Colour-coded Mouse		
4-32	Pointing device - Entry-level eye tracker	<ul style="list-style-type: none"> <li>Specific end-user eye-tracking needs</li> <li>Type of applications to be controlled (e.g. AAC vs. standard applications)</li> <li>OS control needed?</li> <li>Which device to control? Tablet/laptop/desktop)</li> <li>Display size of device</li> <li>Optimal seating position to interact with computing device</li> <li>Seating solution may have to be designed and procured based on end-user requirement</li> </ul>	
4-33	Pointing device - Entry-level eye tracker with OS control		
4-34	Pointing device - Midrange eye tracker		
4-35	Pointing device - Midrange eye tracker with OS control		
4-36	Pointing device - Advanced eye tracker		
4-37	Pointing device - Advanced eye tracker with OS control		
4-38	Advanced Eye tracker Kit for Rugged AAC tablet		
4-39	Optical Character Recognition (OCR) + Camera Bundle		<ul style="list-style-type: none"> <li>Specific OCR needs: type of documents, language, etc.</li> <li>Lighting in primary environment</li> </ul>

		<ul style="list-style-type: none"> <li>Physical constraints and mobility requirements</li> <li>Device integration: which computing device will be used with the bundle</li> </ul>
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#### 4.4 Eye-tracking bundles

Detailed assessment: significant understanding of the unique end-user requirement is necessary to design and propose a suitable eye gaze solution. Criteria include user's physical characteristics (incl. eye properties) and environmental factors such as size of display and distance from screen. A one-size-fits-all approach **must not** be used here, as every user's physical capabilities are unique, and must be assessed on an individual basis.

If a computing device is already available, these bundles should be price-compared with separate components to ensure cost-effectiveness.

4-40	Entry-level eye tracker with Track and Learn	<p><b>Eye-trackers:</b> The type of tasks the user needs to perform, as well as user vision capabilities must determine the appropriate eye-tracking bundle.</p> <p><b>Requirements criteria:</b></p> <ul style="list-style-type: none"> <li>Specific end-user pointing needs</li> <li>Type of applications to be controlled (e.g. AAC vs. standard applications)</li> <li>OS control needed?</li> <li>Which device to control? Tablet/laptop/desktop)</li> <li>Display size of device</li> <li>Optimal seating position to interact with computing device</li> <li>Seating solution may have to be designed and procured based on end-user requirement</li> </ul>
4-41	Entry-level eye tracker with 3 Graded Inclusive Eye Gaze Learning Software titles	
4-42	Entry-level eye tracker with software for Looking to Learn	
4-43	Advanced eye tracker with Gaze Point and Viewing Software	
4-44	Advanced eye tracker for Inclusive Eye gaze	
4-45	Mini Eye Tracking Solution - Advanced tablet	
4-46	Entry-level Eye Tracking solution - Midrange tablet	
4-47	Advanced Eye Tracking Solution - Advanced tablet	

#### 4.5 Visual support aids

Detailed assessment: comprehensive understanding of the end-user's capabilities and limitations is required to propose a suitable vision-assistive solution. Criteria include capabilities of Braille devices required, or requirements for other visual aids such as document cameras, media players, recorders, and scanners.

4-48	Digital Braille Writer	<p><b>Vision assistance:</b> The type of visual aids the user needs to perform their day-to-day functions must determine the appropriate device. These devices can all aid end-user independent functioning with regards to vision to a significant extent.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>Braille device capabilities needed by the end-user</li> <li>Connectivity needs</li> </ul>
4-49	Digital Braille Writer, Advanced	

4-50	Portable Refreshable Braille Display	<ul style="list-style-type: none"> <li>• Braille device capabilities needed by the end-user: display-only vs. simple notetaking vs. advanced capabilities</li> <li>• Size of display (columns)</li> <li>• Mobility requirements</li> <li>• Connectivity: which device(s) to connect to for input and output</li> <li>• Operating system and application needs</li> </ul>
4-51	Portable Refreshable Braille Display with Notetaking	
4-52	Desktop Refreshable Braille Display	
4-53	Advanced Refreshable Braille Display	
4-54	Braille Reader and Notetaker	
4-55	Braille Personal Digital Assistant	
4-56	Braille Personal Digital Assistant, 32-cell	
4-57	Braille Personal Digital Assistant – Android	
4-58	Braille Personal Digital Assistant - Android, 32-cell	
4-59	Braille Personal Digital Assistant – Windows	<ul style="list-style-type: none"> <li>• Volume of printing (pages per month)</li> <li>• Print speed</li> <li>• Paper: size of output required, cut-sheet vs. fan-fold</li> <li>• Finishing required (booklet, stapling, etc.)</li> <li>• Advanced capabilities such as visible ink</li> <li>• Physical environment: acceptable noise levels</li> </ul>
4-60	Low-Volume Braille Printer	
4-61	Low-Volume Braille Printer with Ink Printing	
4-62	Medium-Volume Braille Printer	
4-63	Medium-Volume Braille Printer, Cut Sheet	
4-64	Medium-Volume Braille Printer with Tactile Graphics	
4-65	Medium-Volume Braille Printer with Tactile Graphics, Cut Sheet	
4-66	High-Volume Braille Printer	
4-67	High-Volume Braille Printer, 200 cps	
4-68	High-Volume Braille Printer, Cut Sheet, Noise Cancelling	
4-69	High-Volume Braille Printer, Cut Sheet, Noise Cancelling	
4-70	High-Volume Braille Printer, Heavy Duty	
4-71	High-Volume Braille Printer, Heavy Duty, 600 cps	<ul style="list-style-type: none"> <li>• Paper type is determined by the specific Braille printer in use</li> </ul>
4-72	Braille Paper, tractor	
4-73	Braille Paper, A4	
4-74	Braille Paper, A3	
4-75	Braille Paper, reel	<ul style="list-style-type: none"> <li>• Tactile graphics tools enable blind users to experience content beyond simple Braille.</li> </ul>
4-76	Tactile Duplicator – Swell	
4-77	Tactile Duplicator Consumables –	

	Swell	<ul style="list-style-type: none"> <li>• Software requirements</li> </ul>
4-78	Tactile Duplicator – Thermoform	
4-79	Tactile Duplicator Consumables – Thermoform	
4-80	Tactile Touchpad and Audio Software	
4-81	Smart Watch	<ul style="list-style-type: none"> <li>• Specific type of need to be met: content access / voice recording / image scanning / speech output / advanced image capture</li> <li>• Connectivity requirements</li> <li>• Mobility requirements: size and battery life</li> </ul>
4-82	Specialised e-Reader	
4-83	Multimedia Player	
4-84	Multimedia Player - Wi-Fi	
4-85	Multimedia Player - Wi-Fi, OCR	
4-86	Digital Voice Recorder	
4-87	Text-to-Speech Handheld Scanner	
4-88	Advanced Visualiser for e-Learning and Signing	

#### 4.6 Cases and mounts

Limited assessment: to determine a suitable carry case or mounting solution, exact information of the end-user's tablet or other device is required.

These accessories are to be procured as part of a computer bundle as far as possible, not as an after-the-fact process.

4-89	Carry Case for Tablet	<p><b>Carry cases and mounts:</b> The type of device that must be protected/mounted is the primary consideration.</p> <p><b>Requirement's criteria:</b></p> <ul style="list-style-type: none"> <li>• Device size, weight and mount points</li> <li>• Mobility needs</li> <li>• End-user dexterity and position</li> <li>• Robustness, impact and moisture resistance based on user's physical state</li> </ul>
4-90	Protective Frame for Tablet	
4-91	Protective carry case for tablet	
4-92	Tablet case	
4-93	Mounting plate for tablet	

### 5. Assistive Software

The purpose of these software products is solely to support assistive solutions procured via RT275-2020. It may not be used to satisfy non-assistive or general requirements (mind-mapping software for schools).

#### 5.1 Communication software

Detailed assessment: end-user needs must be well-understood to propose the correct software tool. Solutions include AAC and access, literacy, numeracy, skills development, and text to speech.

5-1	Symbol-based communication software	<p><b>AAC software:</b> The type of communication requirement of the end-user is the primary consideration.</p> <p>In addition, support tools are available to create content or AAC interfaces, and skills development software assist end-users to develop their skills in using the software.</p> <p><b>Requirements criteria:</b></p> <ul style="list-style-type: none"> <li>• End-user needs as identified by practitioner</li> <li>• Specific type of communication need</li> <li>• End-user's physical ability to use computer, input devices and software</li> <li>• Symbol system required by end-user</li> <li>• Level of complexity of language output (limited/open vocabulary sets)</li> <li>• Literacy level of user</li> <li>• Language spoken by user's family/social circle</li> </ul>
5-2	Software for communication and computer access	
5-3	Software for AAC, Communication and Environmental Control	
5-4	Software for communication and access	
5-5	Literacy development and curriculum delivery software	
5-6	Literacy Development Software with Reading and Spelling Support	
5-7	Software to create activity boards	
5-8	Symbol-Resource Software with Speech Output	
5-9	Software to make communication overlays and educational resources	
5-10	Simple Literacy and Typing Software with Symbol Support	
5-11	SA text to speech voice (single language)	
5-12	Symbol communication book system	
5-13	Symbol communication book system, alternative access	
5-14	Software to create personal communication boards	
5-15	Switch skills software	
5-16	Switch skills software with scanning	
5-17	Language and switch skills development software	
5-18	Language and skills development software, multi-user	
5-19	Conversation Software for Communication with Text and Voice	

## 5.2 Vision support software

Detailed assessment: end-user needs must be well-understood to propose the correct software tool. Solutions include OCR, simplified UI, Braille translators, speech to text and other tools for blind users.

5-20	Screen Magnification Software	<p><b>Tools for blind and low-vision:</b> Several types of software are available to address a large variety of vision requirements, including e-book readers, user interface, screen readers and speech conversion.</p> <p><b>Requirements criteria:</b></p> <ul style="list-style-type: none"> <li>• Specific end-user needs: magnification/voice output/speech-to-text/text-to-speech/content access</li> <li>• Computing device onto which the software will be</li> </ul>
5-21	Screen Magnification Software with Speech	
5-22	Screen Reading Software	
5-23	Screen Magnification and Screen Reading Software Bundle	
5-24	Optical Character Recognition (OCR) Software	
5-25	Optical Character Recognition (OCR) Software for Visually Impaired	
5-26	Simple Computing Environment	
5-27	Braille Translation Software	
5-28	Braille Translation Software for Mathematics	
5-29	Tactile Graphics Software	
5-30	DAISY Reading Software	

5-31	Speech Recognition Software	loaded
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### 5.3 Learning and development software

Detailed assessment: end-user needs must be well understood to propose the correct development software. Learning areas include skills development for eye gaze, literacy, numeracy, input device skills, as well as general learning tools such as mind mapping and simulation.

5-32	Sign Language Development Software	<p><b>Learning software:</b> Several types of software are available to address a wide variety of skills development requirements.</p> <p><b>Requirements criteria:</b></p> <ul style="list-style-type: none"> <li>• End-user development needs: learning area/device type</li> <li>• Computing device onto which the software will be loaded</li> </ul>
5-33	Sign Language Literacy Software	
5-34	Keyboard Literacy Software	
5-35	Eye Gaze Learning Software	
5-36	Eye Gaze Learning Software - For Severe Cortical-Visual Impairment	
5-37	Eye Gaze User Assessment Software	
5-38	Literacy Software for Reading and Writing Support	
5-39	Maths Development Software	
5-40	Keyboard Skills Software	
5-41	Keyboard Skills Software for Learners with learning and literacy difficulties	
5-42	Mouse Skills Software	
5-43	Curriculum Activities Software: Literacy	
5-44	Curriculum Activities Software: Numeracy	
5-45	Curriculum Activities Software: Science	
5-46	Curriculum Activities Software: Creativity	
5-47	Mind Mapping Literacy Support Software	
5-48	Simulation Software for Maths, Science, Technology and Computing	
5-32	Sign Language Development Software	
5-33	Sign Language Literacy Software	
5-34	Keyboard Literacy Software	
5-35	Eye Gaze Learning Software	
5-36	Eye Gaze Learning Software - For Severe Cortical-Visual Impairment	
5-37	Eye Gaze User Assessment Software	
5-38	Literacy Software for Reading and Writing Support	
5-39	Maths Development Software	
5-40	Keyboard Skills Software	
5-41	Keyboard Skills Software for Learners with learning and literacy difficulties	

5-42	Mouse Skills Software	
5-43	Curriculum Activities Software: Literacy	
5-44	Curriculum Activities Software: Numeracy	
5-45	Curriculum Activities Software: Science	
5-46	Curriculum Activities Software: Creativity	
5-47	Mind Mapping Literacy Support Software	
5-48	Simulation Software for Maths, Science, Technology and Computing	

## ORAL/VOICE THERAPY PRODUCTS

### 6. Feeding and oral motor

Only practitioner-led therapy; therapist to perform assessment as required.

In cases where these items are required, most therapists will order items in advance to have a kit available for oral placement therapy for both speech clarity and feeding.

Full kits/ programmes are available to be ordered to provide the end-user with all essentials required when providing treatment. These are available for the management of speech, feeding and drooling. Items also include feeding utensils/sensory tools and manuals for exercise programmes.

### 7. Laryngectomy

Only practitioner-led therapy; therapist to perform assessment as required.

### 8. Tracheostomy

Only practitioner-led therapy; therapist to perform assessment as required.

## GENERAL THERAPY RESOURCES

### 9. Assessment tools

Only practitioner-led therapy; therapist to perform assessment as required.

### 10. Therapy Resources

#### 10.1 Speech therapy resources

No assessment applicable – specialist therapist resources determined by therapist needs.

#### 10.2 Other therapy resources

No assessment applicable – specialist therapist resources determined by therapist needs.

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## SERVICES

### 11. Assistive Services

#### 11.1 Assistive hearing services

Need for *ad hoc* services determined on a case-by-case basis. Available services are interpreting (signing or spoken) and captioning for deaf/hearing-impaired users or audiences.

Integration with the end-user's hearing aid should be considered. Note that hearing aid devices can be procured from transversal contract RT274.

#### 11.2 General assistive services

Need for *ad hoc* services determined on a case-by-case basis. Services include consultation, needs assessment, installation and configuration, integration, orientation and training, support, and maintenance.

Additional travel costs may form part of these services, depending on location and service type.

## 7. Services

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Services available on RT275-2020 must be rendered by skilled individuals and must be applied to individual solutions as identified during the end-user needs analysis.

### Definitions of Services on Transversal Contract

- **Needs assessment:** pre-sales service involving gathering and documenting end-user solution requirement. This includes the end-user's actual assistive need (e.g., vision/hearing impairment, cerebral palsy), physical environment (e.g., mounting options), hardware (e.g., computer, switches), software environment (e.g., operating system, applications) and any other solution-specific needs. Existing hardware, software, and assistive devices in use by the Participant must be taken into account (e.g., switches or mounting solutions). Suppliers must ensure that this assessment is performed in as unbiased way as possible.
- **Design:** Based on the need's assessment, a full design proposal is created for the solution. This includes all solution components that may be required, including hardware, software, mounting equipment, and additional services.
- **Supply/Delivery:** Required in all cases; included in base price; could be physical on-site delivery of a hardware product, e-mail or download of a software licence, or rendering of a service via a video call; non-skilled service. Delivery requirements must be stipulated clearly in the order so that the service provider knows where and to whom the delivery must be done. Depending on an State institution's processes and requirements, delivery can either be done directly to the end-user, to State institution stores, or to the practitioner. For tracking purposes, the device may have to be delivered to and signed for by stores so that payment may be processed efficiently. Stores can then deliver the device to the relevant department/division/unit (ordering therapist), where it is signed for record purposes.
- **Installation and configuration:** Once delivered, solution components are installed and configured at the Participant's site. This includes installing all hardware and software components.
- **Integration:** If required, additional work can be done to fully integrate the solution into the Participant's environment. This includes additional software configuration, network settings (e.g., firewall), and hardware such as connecting existing switches or equipment mounts.
- **Orientation and training:** Enabling the end-user to use the assistive solution effectively; extent depends on the complexity of the solution and the skills of the practitioner or end-user; new users will usually require formal training, while supply of a new or upgraded product to an existing user will not. This is left to the end-user to determine, in consultation with the practitioner and service provider (recommendation based on needs assessment during RFP phase). Another determining factor is how the product is employed: if a practitioner will be using it in a therapy scenario, training is typically not required (e.g., low-tech AAC or medical product). However, if the end-user will be using the product directly (e.g., a PC-based AAC solution) training will be required. The end-user's individual needs must be considered here. Note that training can only be scheduled once end-user has taken delivery of the solution.
- **Support and maintenance:** Ensuring that the solution is kept operational and fully functional; applicable to all RT275-2020 solutions, included in Base Price; requires bundled warranty from the hardware manufacturer where applicable. Any component or sub-component that can fail in some way needs to be repaired or replaced. Includes support needed by the end-user in accessing and operating the solution (after training). Simple products such as velcro fasteners

are much less likely to fail than a digital magnifier or eye-tracking system with software and hardware components, hence less or more support is needed based on complexity.

- **Consultation:** includes any technical, technology- or solution-focussed advice rendered by the supplier to the end-user; applicable at any time during a product's lifecycle, from before procurement until disposal, depending on client's specialised needs.

## 8. Supplier Conditions

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In terms of transversal contract RT275-2020, best practices and SITA regulations with regards to ICT-based solutions, Suppliers must adhere to the following conditions with regards to solution design and service delivery.

- Suppliers must ensure that all required information is gathered from the end-user before proving a proposal or delivering a solution. This is to ensure that the Participant's needs are met by the proposed solution, and that only complete solutions are offered.
- The final responsibility for a working solution rests with the Supplier. Suppliers must ensure that the specified requirement is fully met by the proposed solution, and that all capabilities, components, accessories and required services are included in the proposed price.
- All specified accessories, as well as any upgrades ordered as part of the solution must be installed and fully operational at delivery and must be covered by the specified Service Level Agreement (SLA).
- Suppliers must inform Participants of best practices in terms of solution selection, deployment, and operations.
- Suppliers must propose the most suitable and cost-effective solutions given the Participant's requirements.
- Suppliers must be certified to supply, install, support, and maintain each individual product in the solution offered to Participants.
- Registration of all product warranties must be done by the Supplier after delivery of a solution. Participants will not register products for warranty to be eligible for warranty claims and support; this must be provided as part of the solution.
- Suppliers must ensure that any product or model changes are processed and approved on transversal contract via the appropriate process.
- Authorised channel: no products sourced via grey market channels or parallel imports will be allowed, as per transversal contract conditions. In addition to this, only Original Equipment Manufacturer (OEM)-approved partners will be allowed to supply via the transversal contract RT275-2020.

### Criteria for Suppliers and services (as per technical specifications):

- Suppliers and their representatives who interact with Participants and perform services must be **qualified, experienced, and professional**, and fully supported by the local import channel (manufacturer or distributor) as per the authorisation letters.
- Maximum **delivery period** from date of order: 4 weeks, except if specified/agreed otherwise in RFP or engagement process, and dependent on quantity. Supplier to notify Participant of any lead time issues.
- Supply of all products must be via the **official local import channel**, not grey market, or alternative imports. Supplier must be an authorised reseller of the offered products. Proof must be attached per brand.

- When delivering services to Participants, the **confidentiality and security** requirements of the environment must be respected and always maintained.
- **Warranty** included in solution price: full coverage (parts and labour for 1 year (12 months)).

## Annex: Terms and Definitions

Term	Definition
<b>AAC</b>	Augmentative and Alternative Communication Devices
<b>Bundle</b>	A combination of hardware, software and accessories supplied as a single solution
<b>Participant</b>	User of the contract: depending on context, this could be the end-user of the product, the practitioner/clinician, the procurement officer, or another party.
<b>DAISY</b>	Digital Accessible Information System
<b>DBE</b>	Department of Basic Education
<b>End-user</b>	The final, actual user of the product or solution procured from RT275-2020. This user's individual needs must be considered during design and integration of the assistive solution. Any other considerations such as Organ of State's ICT standards must also be incorporated where appropriate.
<b>GPS</b>	Global Positioning System
<b>ICT</b>	Information and Communications Technology
<b>IT</b>	Information Technology
<b>LSEN</b>	Learners with Special Education Needs
<b>LTE</b>	Long Term Evolution, or 4G wireless communications
<b>NT</b>	National Treasury
<b>OCR</b>	Optical Character Recognition
<b>OEM</b>	Original Equipment Manufacturer
<b>OS</b>	Operating System
<b>PC</b>	Personal Computer
<b>Practitioner</b>	Therapist, clinician or specialist in assistive therapy and solutions; skilled and experienced in working with users with disabilities, and identifying appropriate assistive solutions. This may include an ICT resource with sufficient experience or skills in assistive solutions.
<b>RFP</b>	Request for Quotation/Proposal
<b>SITA</b>	State Information Technology Agency
<b>SLA</b>	Service Level Agreement
<b>STT</b>	Speech To Text
<b>Solution</b>	A combination of products and services into a single, integrated system that serves a specific end-user need. This could include, e.g., a tablet with AAC software bundled with eye-tracking device.
<b>Therapist</b>	Formally qualified and/or registered person in the relevant healthcare field, e.g., occupational or speech therapist.
<b>TCO</b>	Total Cost of Ownership
<b>TTS</b>	Text To Speech
<b>UI</b>	User Interface
<b>USB</b>	Universal Serial Bus
<b>VESA</b>	Video Electronics Standards Association