

EDIPS

- Edutainment for Designing Integrated Product-Service System -

by Shimomura Laboratory
Tokyo Metropolitan University



5-6



90min.

*Can you create a sustainable business through a Product-Service System(PSS) design?
You become a product or service provider in EDIPS. You sell products or offer services to earn money in the market. Market conditions determine the value of the products and services. Surviving in the market involves not only selling products or offering services but also integrating them effectively.*

Can you design an effective combination of products and services? Develop your talent as a PSS designer!!

CONTENTS



57 Product cubes
(19 in 3 colors)



60 Service cards
(15 in 4 relevant phases)



10 Event cards



6 Play guides



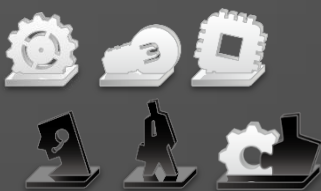
8 Expert cards
(2 in 4 kinds)



18 Color clips
(6 in 3 colors)



4 Alliance clips
(2 pairs)



78 Player markers
(13 in 6 kinds)



Currencies

Gold bar = 10 points
Gold plate = 5 points
Silver bar = 2 points
Silver plate = 1 point

1 Dice

2 Boards

OVERVIEW

In EDIPS, you become a product or service provider. By the end of the game, product providers sell their products and service providers offers their services to get a lot of points.

A game is composed of 6 seasons (1 season = 15 minutes). At the ends of each season, price fluctuations and other events occur. After 6 seasons, the player/alliance having the most points wins the game.



SETUP

1 Set out the boards, cards, cubes and currencies

Display two game boards as shown. Place 18 of each color of product cubes on the factory areas. Shuffle the service and event cards and set them face down where indicated on the game board. Place the other components near the game master. Award 15 points (1 gold plate, 3 silver bars, 4 silver plates) to each player as initial funds.

2 Determine roles

Let each player roll a die to decide his/her role. Select 3 product providers and 2 service providers according to the number rolled on the dice:

Dice number	Role (# of players)	Symbol
1-3	Product provider (3)	
4-6	Service provider (2)	

Hand out the player guides and markers according to his/her role. During the game, players can hide their own funds behind the play guides.

3 Decide initial condition of each player

Product provider

Each product provider will:

- Choose a lane and place his/her marker on the upper side of the corresponding manufacturing area.
- Select 1 color of cubes to deal initially and place a selected color clip onto his/her play guide.

NOTE: Each product provider must select a different color.

Service provider

Each service provider will:

- Select 1 color of cubes for which he/she will initially offer services. Place a selected color clip onto his/her play guide.
- Select 1 kind of service (training, monitoring, repairing, or reuse service) as a profession. Place the relevant expert card to his/her play guide.

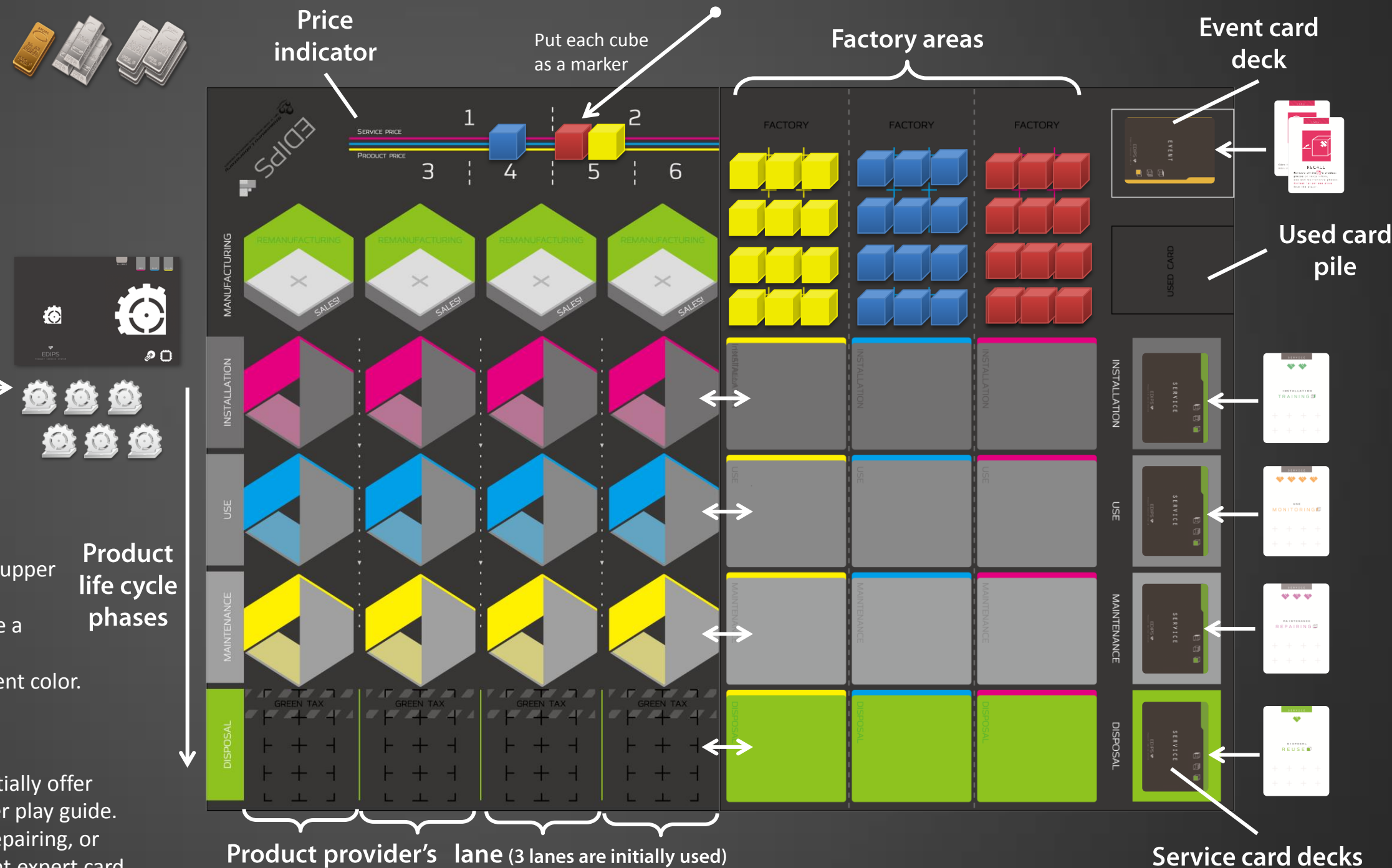
NOTE: Each service provider must select a different color and profession.

4 Set initial prices

Roll a die and decide the initial price of each color according to:

Dice number	Price of a product cube	Service price for a product cube
1-3	4	1
4-6	5	2

*) In EDIPS, prices of products and services are combined



5 Begin play

The product provider of the "yellow product" goes first.

PLAY

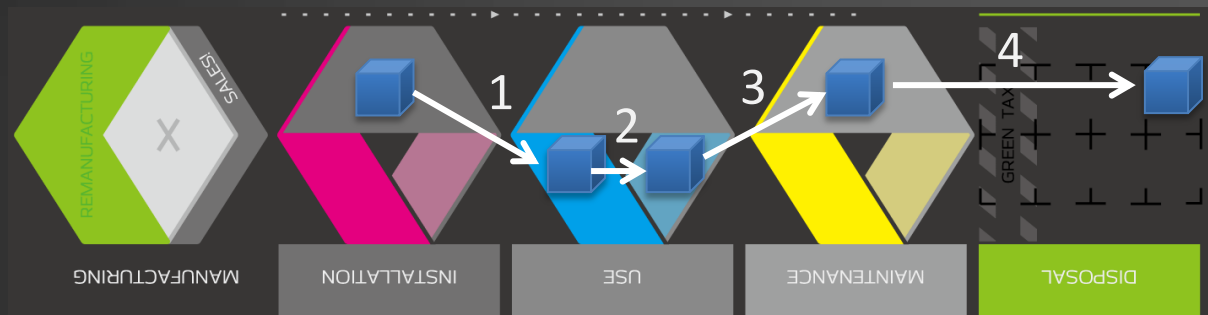
A player's turn is divided into 2 parts:

1. Manage Product Life Cycle (for product providers and the PSS provider only).
2. Perform 1 action.

After a player performs an action, play shifts to the person on his/her left.

PRODUCT LIFE CYCLE

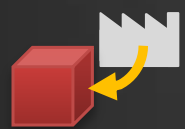
Sold product cubes pass through the following life cycle phases: installation, use, maintenance, and disposal area. Product providers manage this movement before performing an action. The sequence of the life cycle differs by color of the product cubes. For example, blue cubes have 2 steps in the use phase, and yellow cubes have 2 steps in the maintenance phase.



ACTIONS

Only 1 action is performed in every turn. Performing no action is also allowed. The actions a player selects must differ from his/her role. Some actions require costs.

Product provider



Production

A player can transfer up to 4 cubes from the factory to his/her manufacturing area.
NOTE: No more than 4 cubes can be placed in his/her manufacturing area.

Cost: 2 points / cube



Sales

A player can move up to 2 cubes from his/her manufacturing area to the installation phase.

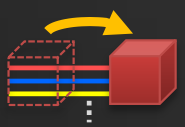
Cost: -



Color addition

A player can add a product color that he/she can deal. When this occur, the player should place a clip of that color to his/her player guide.

Cost: 12 points / color



New standard

A player can raise the price of a color by 1 point.
NOTE: The player must select a product color he/she can deal.

Cost: 8 points / color

Other product providers who can deal the selected color must then pay 8 points. If a provider cannot pay, he/she loses the ability to produce products of that color and removes the color clip from his/her play guide.

Shift to PSS provider



A player can become a PSS provider. Once a PSS provider is named, other players cannot select this action.

The player then replaces his/her play guide with a PSS provider guide and transfers the color clips that he/she have acquired to both the product and service sides.

The player can then:

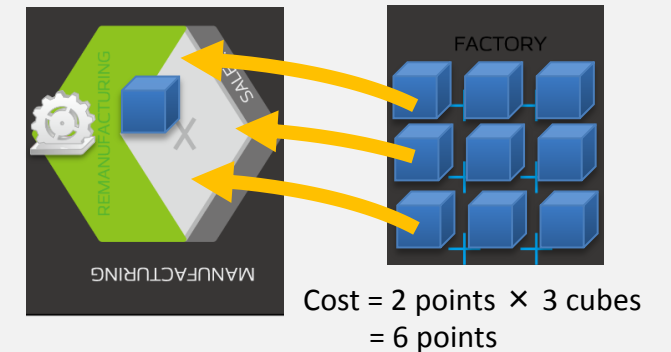
- Select a profession and place the relevant expert card on the new guide
- Draw all kinds service card one by one without any costs.

Reference: Abilities of a PSS provider (→ See page 8)

Cost: 20 points

Play Example:

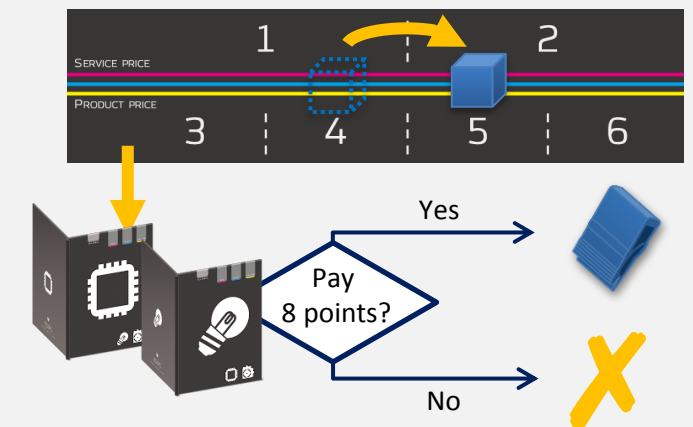
Ken, who is a product provider, selects "production." Because he already has 1 cube in his manufacturing area, he can produce up to 3 cubes.
If he produces 3 cubes, he has to pay 6 points in costs.



Play Example:

Ken selects "new standard." He selects blue. After he pays 8 points, the price of blue products is set at 5 points.

The other product providers, Mike and Ben, also have the ability to deal blue products. If they want to retain the ability, they also have to pay 8 points.



How does a product provider get points?

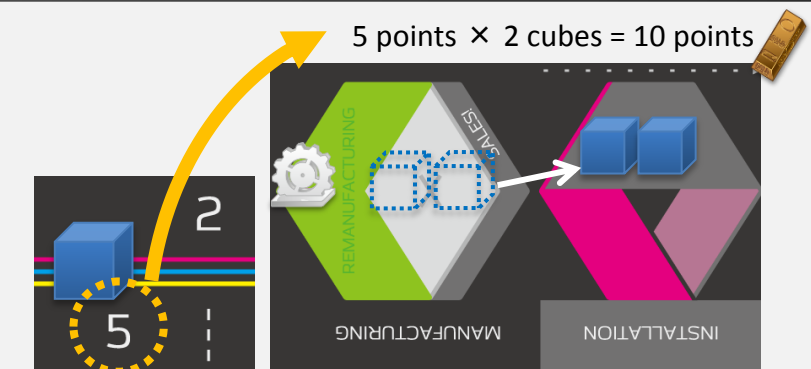
Product providers can earn points when they conduct "sales" actions.

Points = Product price × number of sold product cubes

Play Example:

The price of the blue product is 5.

If Ken select a "sales" action and sells 2 blue cubes, he receives 10 points.



ACTIONS

Service provider



Development

A player can draw up to 4 service cards.

Cost:
 [Profession] 1 point / card
 [Other kinds] 4 points / card



Launch

A player can arrange up to 2 service cards. For each card, the player will:

- Select a color available for him/her target
- Place the card in the cell at the intersection of the target color and the relevant phase of service.
- Pay at least 1 point for the card as an investment and place his/her marker on the card.

Reference: Effect of investment (→ See page 7) **Cost: more than 1 point / card (as an investment)**



Target color addition

A player can add a color for which you can launch service cards. When this occur, the player should place a clip of that color to his/her player guide.

Cost: 8 points / color



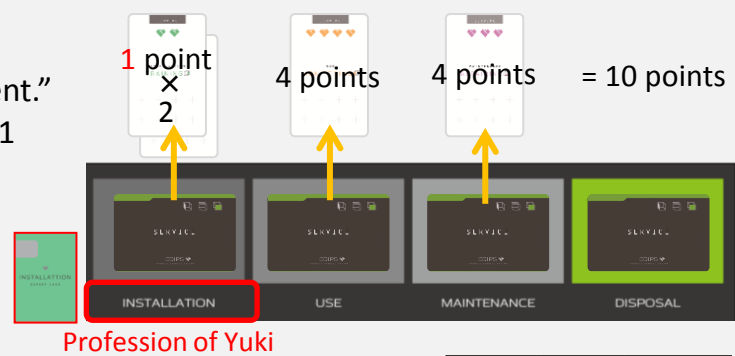
Shift to PSS provider

A player can become a PSS provider. Once a PSS provider is named, other players cannot select this action. The player then replaces his/her play guide with a PSS provider guide and transfer the color clips that he/she have acquired to both the product and service sides.

Reference: Abilities of a PSS provider (→ See page 8) **Cost: 50 points**

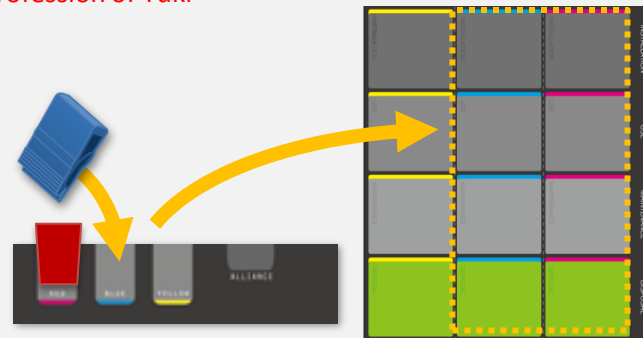
Play Example:

Yuki, a service provider, selects “development.” She wants to draw 2 training service cards, 1 monitoring service card, and 1 repairing service card. Because her profession is at a training service, she must pay a total of 10 points to draw these cards.



Play Example:

Yuki has only a red clip. She selects “target color addition” and gets a blue clip by paying 8 points in costs. From now on, she can put her service cards in both red and blue cells.



Service competition

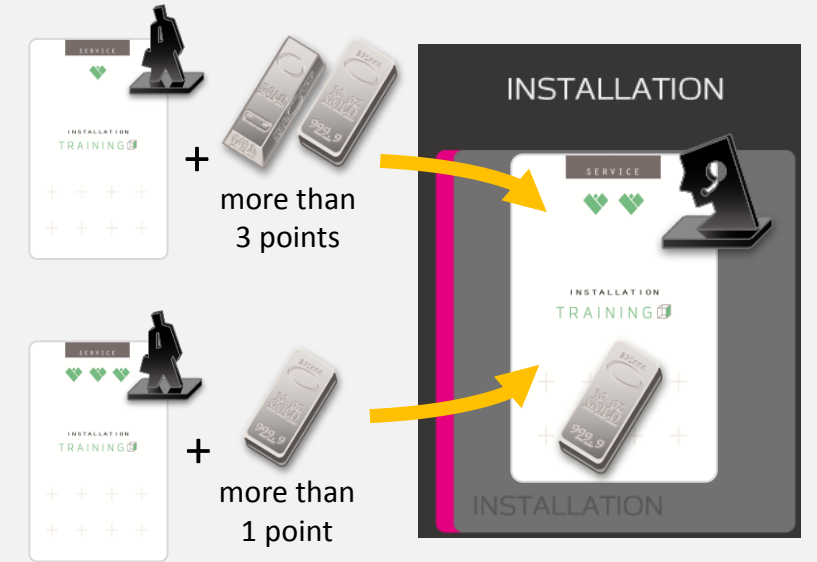
Service providers can replace a competitor's service card by launching a service card with a higher competitiveness value. Competitiveness of the service is calculated as follows:

$$\text{Competitiveness} = \text{number of } \heartsuit \text{ on the card} + \text{amount of investment in the card}$$

Play Example:

Yuki already has launched a training service for the red product. Competitiveness of the service is 3.

If John, the other service provider, wants to replace this service card, he must launch a new training service with a higher competitiveness value of 4 or more.



How does a service provider get points?

Service providers can earn points when target product cubes arrive at relevant phases of their own service cards.

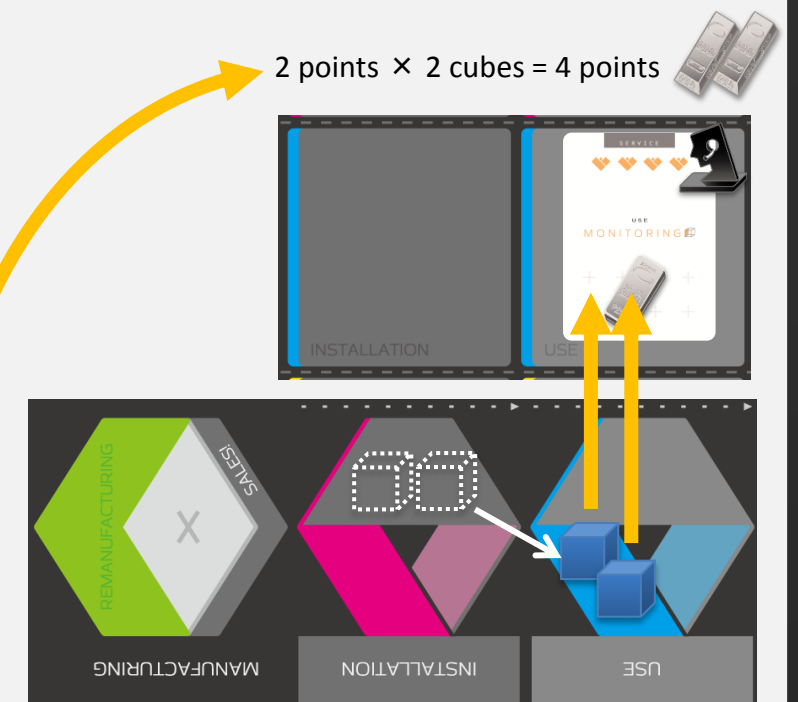
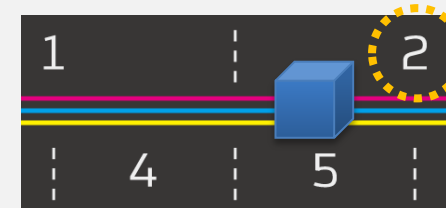
Exception: Service providers cannot get points by reuse services (→ See page 10)

$$\text{Points} = \text{Service price} \times \text{number of target product cubes}$$

Play Example:

The service price for the blue product is 2 points. Ken moves 2 blue products onto the Use phase of the board at the beginning of his turn.

Yuki has already launched her monitoring service for blue products, so she can now get 4 points added to her funds.



PSS PROVIDER

The PSS provider has these abilities:

Performing both actions of product and service sides

The PSS provider can conduct 2 actions in his/her turn following this procedure:

1. Manage Product Life Cycle
2. Perform 1 product provider action
3. Perform 1 service provider action

Exception: In the turn when a player elects to “shift to PSS provider,” he/she can continuously perform an additional action selected from opposite side of his/her original role.

Advantage in service competition

The PSS provider can replace other service providers’ cards regardless of the competitiveness value. Other competitors cannot replace the PSS provider’s service cards.

This ability is activated only in the following conditions:

- ✓ The competitor has not established an alliance.
- ✓ The PSS provider has a clip of the target color on both the product and service sides.

Reuse service

The PSS provider can use the effect of his/her reuse services (→ See page 10).

ALLIANCE

A product provider and a service provider can establish an alliance. This activity is not included as an action. When an alliance is made, the two players involved must place the same alliance clip on their play guides.

Cost: 40 points from team

Players in an alliance gain the following abilities:

Total funds

The 2 players in an alliance can combine their funds at the end of the game.

Advantage in service competition

A service provider with an alliance can replace other service providers’ cards regardless of the competitiveness value. Other competitors cannot replace the provider’s service cards.

This ability is activated only in following conditions:

- ✓ The competitor does not have an advantage in the service competition.
- ✓ Both players in the alliance have the color clip targeted by the service.

NOTE: A product provider with an alliance places his/her marker on partner’s service cards.

Reuse service

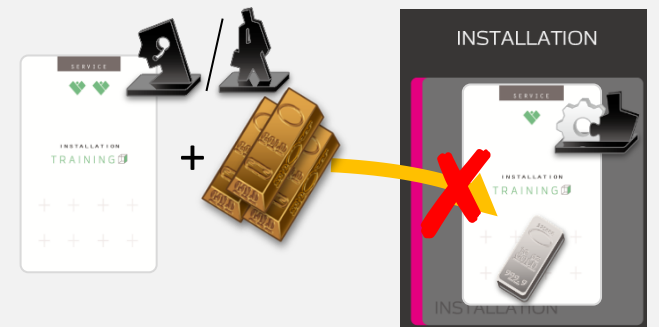
A product provider with an alliance can use the effect of partner’s reuse services (→ See page 10).

Play Example :

John has launched a training service for the red product. The competitiveness value of the service is 5.

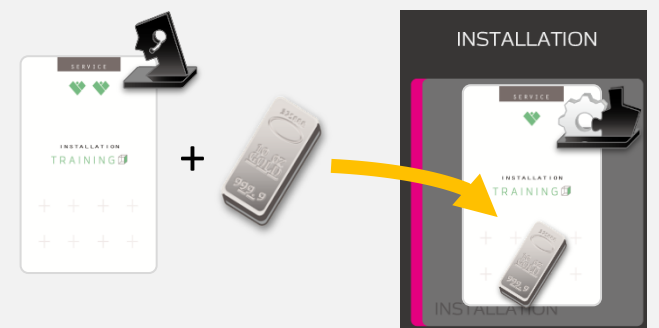
Ken becomes the PSS provider and gets service cards. He now has advantage for service competition. He can replace John’s training service even if the competitiveness value of his new service has a lower value than John’s service. However, investments for the service (minimum 1 point) are required.

John and Yuki, who are normal service providers, cannot replace Ken’s service cards until they establish alliances with product providers.



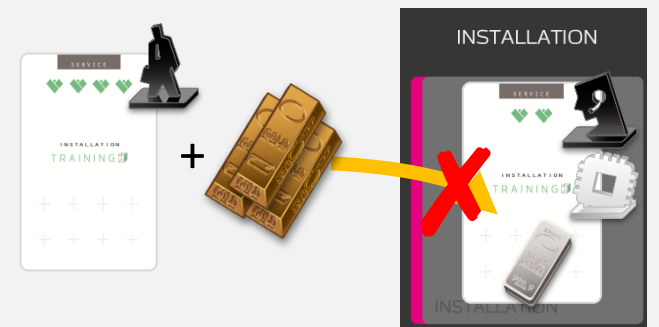
Play Example:

To cope with Ken, Yuki establishes an alliance with Mike. Yuki then can replace Ken’s service cards by launching more competitive services.



Play Example:

John reluctantly makes an alliance with Ben. However, Ben does not have a red clip. Because the condition to activate the advantage in the service competition is not fulfilled, John is still unable to replace Ken’s and Yuki’s service cards.



Memo:

From midpoint to end, the game becomes a three-way struggle among the PSS provider and 2 alliance teams. To win the game, strategic selection of a partner is important!



REUSE SERVICE

The PSS provider and product providers in alliances can use the effect of reuse service cards. Reuse is not included as an action, and it must be used before performing an action in a turn.

Effect of reuse service

A player can move up to 4 product cubes from his/her disposal area to his/her remanufacturing area (green zone of manufacturing areas). **Cost: 1 point / cube (Take the points to partner*)**
 *) The PSS provider need not to pay

Remanufacturing area

- ✓ Product cubes in a remanufacturing area cannot be sold.
- ✓ When a limit of the manufacturing area is applied, the remanufacturing area is included.
- ✓ At the end of a turn, all product cubes in the remanufacturing area can be moved to the manufacturing area.

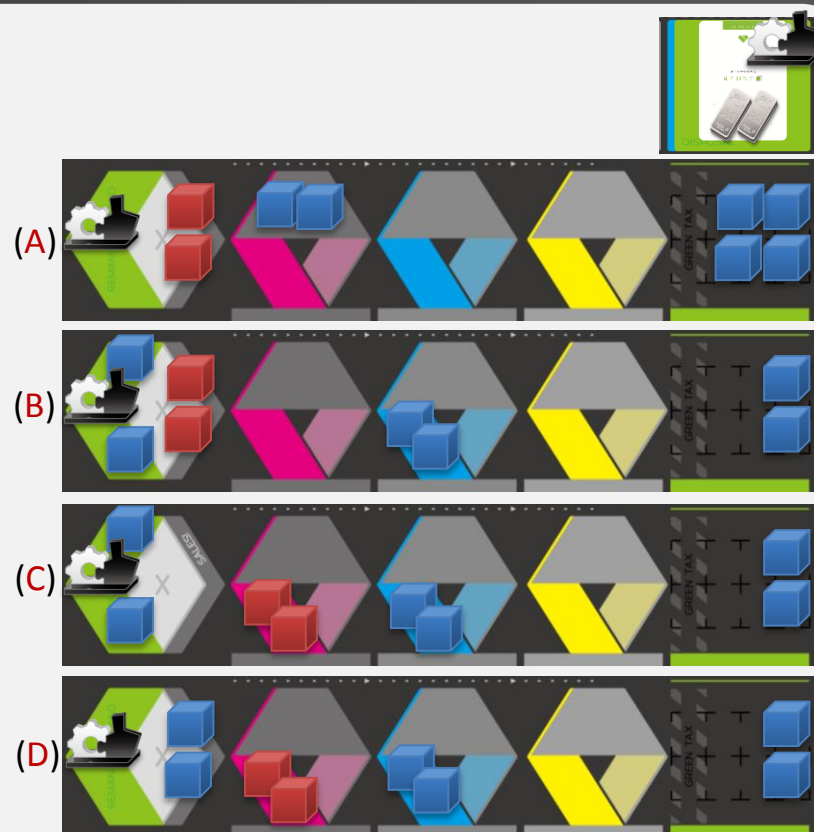
Play Example :

Ken's manufacturing area contains 2 red cubes. Ken has launched a reuse service card for blue product cubes (A).

After managing Product Life Cycle and calculating points for services, Ken uses the effect of the reuse service. He chooses 2 blue cubes to reuse (B).

Because reused products cannot be sold in this turn, he sells 2 red cubes in his manufacturing area (C).

At the end of this turn, he moves the 2 reused blue cubes to his manufacturing area (D).



Play Example:

Mike's manufacturing area contains no products. Mike has already established an alliance with Yuki. Yuki has launched a reuse service card for red products (a).

After managing Product Life Cycle and calculating points for services, Mike pays 4 points to Yuki to reuse 4 red cubes in his disposal area (b).



GREEN TAX

The product provider who collects 8 or more product cubes in his/her disposal area must pay 5 points immediately as green tax. After the payment, return all the cubes in his/her disposal area to each factory.

TURN END

A player's turn is over he/she completes an action. Play then shifts to the player's left

EVENT PHASE

An event phase occurs every 15 minutes except for last season. An event phase is divided into 3 parts:

Publication of funds

Each player informs others of his/her total amount of funds.

Price change

Price of products and services varies depending on the number of product cubes in the installation, use and maintenance phases in all lanes.

- ✓ Decrease the price of the largest number of cubes (-2 points)
- ✓ Increase the price of the smallest number of cubes (+2 points)

Event card

The game master draws and exercises an event card.

Play Example:

Phase	# of cubes	Price change
INSTALLATION	<ul style="list-style-type: none"> Red x 4 Blue x 3 Yellow x 2 	<ul style="list-style-type: none"> Red -2 Blue +0 Yellow +2
USE	<ul style="list-style-type: none"> Red x 3 Blue x 3 Yellow x 4 	<ul style="list-style-type: none"> Red +2 Blue +2 Yellow -2
MAINTENANCE	<ul style="list-style-type: none"> Red x 3 Blue x 3 Yellow x 4 	<ul style="list-style-type: none"> Red +2 Blue +2 Yellow -2

GAME END

After 90 minutes (6 seasons), the game ends.

The player or alliance team with the largest amount of funds wins the game. All players calculate their own points. The players of alliance members are combined.

CREDITS

Game design: Shimomura Laboratory
Special thanks to Shoko Hosoda and Naoki Kanetomo

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